

# A Study of Fragility, Entrepreneurship and Mental Health:

Investing in Better Cognitive  
and Behavioral Skills for  
Small Medium Enterprise  
Entrepreneurs to Thrive in  
Conflict-Affected Areas  
of Pakistan



WORLD BANK GROUP

Priyam Saraf



*A Study of Fragility,  
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**Button vendor smiles at camera in Peshawar, Pakistan.**  
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# Executive Summary

*“Having anxiety and depression is like being scared and tired at the same time. It's the fear of failure, but no urge to be productive. It's wanting friends, but hate socializing. It's wanting to be alone, but not wanting to be lonely. It's feeling everything at once then feeling paralyzingly numb.”*

*- Author Unknown*

## **What is the motivation for this study on fragility, entrepreneurship and mental health?**

The increase in conflict and natural disasters around the world has affected nearly 132 million globally. The pattern of conflict engulfing many parts of the world today is associated with long-term psychological consequences. Parts of the Khyber Pakhtunkhwa (KPK) province and the Federally Administered Tribal Areas (FATA) of Pakistan have suffered from such armed conflict for the last 3 decades. The 2009-10 insurgency and subsequent security operations have displaced an estimated 2 million people from both regions and severely damaged infrastructure and livelihoods, negatively impacting the social and economic fabric of the entire region.

It is widely recognized that Small Medium Enterprises (SMEs) are a lifeline for job creation and economic growth in developing countries, including those affected by fragility, conflict and violence (FCV). While several interventions exist to support SME entrepreneurs in providing access to finance, increasing skills and connecting with bigger markets, what is often overlooked is their mental health and well-being which affects their capability to function - *as a whole human being* - in challenging settings. Compared to large enterprises, entrepreneurs of SMEs deal with unusually high levels of uncertainty and experience cognitive resource depletion: factors which have high psychological and physical health costs, including greater risk for depression and anxiety. This can result in lower business performance over the long run.

In FCV affected contexts such as KPK, the combination of regular business-related entrepreneurial stressors with the uncertainties in the external environment can amplify poorer psychological outcomes and further impede business performance. The high levels of unpredictability, perceived risk, and cognitive depletion among entrepreneurs in such

contexts can lead to poor psycho-emotional and psycho-pathological outcomes. Despite this, programs targeting SME growth in FCV contexts rarely focus on improving the psychological well-being of entrepreneurs, which could be a path to improved productivity through the expansion of their capability to function.

**What is the cognitive and behavioral training intervention for entrepreneurs evaluated by the study?**

The Economic Revitalization of KPK and FATA (ERKF) project, established in 2012 and supported by the World Bank Group, is working for the rehabilitation of Small and Medium Enterprises (SMEs), with the aim of creation and restoration of jobs. In early 2018, a World Bank team built on the ERKF program infrastructure in KPK to design, deliver, and evaluate the impact of a novel cognitive and behavioral skills intervention to improve mental health outcomes for these entrepreneurs. This report discusses: 1) methods for rapid and safe data collection from conflict-affected settings to inform intervention development; 2) the development of a feasible and culturally appropriate cognitive and behavioral training intervention to improve mental health and well-being of SME entrepreneurs; and 3) evaluation of the feasibility and impact of the intervention for this population.

To identify the challenges faced by SME entrepreneurs in the KPK region, their effects, and the coping strategies, a qualitative needs assessment study was conducted. Its findings confirm that the chronic adversities prevailing in KPK manifest themselves in the form of ‘distress’ for SME entrepreneurs, which are linked to low mood and energy, impaired quality of life, poor self-esteem, increased conflicts within the household, as well as feeling of negativity, hopelessness, and agitation — even leading to suicidal thoughts in some cases. In the long-term, these were linked with the inability to problem solve and innovate, and low return on investments. Major causes of this perceived stress among this population include safety and security concerns, financial difficulties, lack of appropriate technical and soft skills, disturbances in family life, and social and cultural barriers for female entrepreneurs.

Behavioral economics and cognitive psychology provide a set of tested tools, such as Cognitive Behavioral Therapy (CBT), to address stress and cognitive resource depletion, including restoration of emotional well-being. While traditionally, CBT has been used with various clinical demographic groups to effectively reduce symptoms of depression, evidence of successful CBT and similar psychosocial interventions is now growing to include non-mental health areas such as in the workplace as well. Among the several available curricula that build on CBT, the Problem Management Plus (PM+) curricula by the World Health Organization (WHO) was chosen and adapted for this intervention for three reasons: its applicability in addressing the relevant needs of the population, its

contextual validity as the curricula has already been tested in KPK, and the ease of delivery and scale up as PM+ could be delivered by trained, non-specialist providers (NSPs). The curriculum was adapted and reframed to make it implementable among high-achieving SME entrepreneurs who are suffering from an unrecognized (high) burden of mental health problems. The revised curriculum for this 5-week training intervention was called Problem Management Plus for Entrepreneurs (PM+E). Core content of group-based training included stress management, problem solving, behavioral activation, strengthening support networks, and self-care.

### **How was the evaluation set up? What was the hypothesis to be tested?**

This evaluation tests the hypothesis that a five-week group Cognitive Behavioral Training called Problem Management Plus for Entrepreneurs (PM+E) could be more effective at reducing psychological stressors of SME entrepreneurs in FCV contexts than financial assistance alone. To test this hypothesis, a randomized control trial (RCT) was designed to evaluate the incremental effects of PM+E, over and above the effect of receiving cash grants: entrepreneurs in the treatment group received the PM+E intervention as well as cash grants, whereas those in the control group received only cash grants. The outcome measures were reduced intensity and prevalence of depression and anxiety symptoms as well as improvements in well-being among SME entrepreneurs. The study was conducted with 235 SME entrepreneurs, and data were collected on psychological indicators of study participants across three rounds: a baseline prior to the start of the intervention, the first midline survey immediately after delivery of the intervention at the 5-week mark, and a follow-up midline survey 3 months after the intervention. An endline survey is planned at 18 months to assess the longer-term impact of the intervention on mental health and well-being as well as its impact on business performance (which is likely to take longer to manifest).

### **What were the results at 3 months post intervention?**

The intervention led to improvements in mental health outcomes based on data from both follow-up surveys. Three months after the intervention, based on analysis of pooled data across two follow-up rounds (at five weeks and three months post intervention), entrepreneurs in the treatment group experienced statistically significant (at a 10% level) reduction in the intensity and prevalence of depression and anxiety symptoms (measured by the Patient Health Questionnaire Anxiety and Depression Scale) and higher levels of well-being (measured by the WHO-5 Well-Being Index) compared with the control group. Entrepreneurs in the treatment group experienced a substantial decline in the odds of experiencing depression and anxiety compared to those in the control group (odds ratio of 0.46 for treatment group relative to control group).

Effect was particularly marked for those who were in the mild to moderate category. Across all outcome indicators, impact is larger 3 months after the intervention, compared to immediately after at 5 weeks. This suggests that early intervention for the mild to moderate category might prevent onset of more serious and chronic issues, saving precious public health resources. It also indicates that the benefits of a CBT-based training curriculum, which focuses on changing mindsets (that is, developing positive outlook and resilience, and improving decision-making abilities), may be incremental over time.

Overall, these results suggest that although cash transfers (circa US\$14,000/trainee) may improve mental health by addressing financial constraints and related stress, combining it with a low-cost PM+E intervention (at a cost of US\$300/trainee) can substantively improve mental health outcomes among SME entrepreneurs in FCV contexts. Entrepreneurs in the treatment arm who received both the PM+E training and the cash grant experienced nearly 50 percent lower odds of mental health problems compared to those in the control arm who received only the cash grant. This gives a directional sense of the cost effectiveness of this training too. Given the limited evidence base on the impact of psychosocial interventions on mental health for SME entrepreneurs, this study serves as a positive example of the feasibility of implementing such interventions in post-conflict and violence-affected contexts.

### **What are some lessons learnt for future replication of the intervention in fragile and conflict-affected contexts?**

This study has revealed several lessons and limitations of implementing such programs and evaluations in challenging environments which would be useful to consider in future scaling efforts in similar regions.

The geographical spread and conflict persistence had an impact on attendance and attrition rates. Although the average attendance rate was above 60 percent, which is considered quite good for FCV contexts, it was lower than the 75 percent attrition anticipated by the team. These limitations in sample size most likely affected the ability to detect significant effects of the intervention on outcome variables such as prevalence, which only shows statistically significant effect when data is pooled across rounds. These rates could be improved in the future by focusing the training on specific groups of entrepreneurs. From this work, it appears that low-income entrepreneurs tend to attend diligently, probably as they do not have substitute networks and resources to otherwise access such training.

Another limitation was the heterogeneous nature of entrepreneurs, which required the formation of “affinity groups.” This increased the complexity of the operation as it required matching trainer profiles to the participant profile, even for small groups. Larger

## **A Study of Fragility, Entrepreneurship and Mental Health**

sample size (calculated circa 630+) would allow to stratify randomization along critical characteristics in future studies. This kind of matching is crucial for the success of the non-specialist providers that make this intervention so affordable, so it is important to enable it as much as possible.

Finally, this study revealed that SME entrepreneurs found the focus on stress mitigation in a high risk prone environment relevant to their existing circumstances, and wished to promote the training among their employees. The framing of the curriculum, in language of self management and leadership improvement, was key to achieving this outcome. Ensuring that all programming is relevant to the local context is crucial.

Overall, the findings from this study introduce a novel and scalable method of implementing useful psychosocial training and conducting research in a challenging real-life setting among SME entrepreneurs. Positive trends in the results are promising and clinically important, and could be further built upon in larger studies in the future.

# Abstract

Mental health, well-being and lasting economic outcomes are intimately connected. However, in geographies marked by fragility, conflict and violence (FCV), entrepreneurs of small and medium size enterprises (SMEs) experience chronic stress and poor mental health on a regular basis. These issues can hamper performance and quality of life for the entrepreneurs, and can dampen the benefits of existing financial and business assistance programs. Few proven rigorous interventions are known. This study tests the hypothesis that a five-week group Cognitive Behavioral Therapy (CBT) training called Problem Management Plus for Entrepreneurs (PM+E) in combination with financial assistance could be more effective at reducing psychological stressors of SME entrepreneurs in FCV contexts than financial assistance alone. Meaningful and statistically significant improvements in mental health were achieved, with improvements persisting and increasing beyond the immediate post-intervention period. Three months after the intervention, based on analysis of pooled data across two follow-up rounds (at five weeks and three months post intervention), entrepreneurs in the treatment group experienced statistically significant reduction in the intensity and prevalence of depression and anxiety symptoms (measured by the Patient Health Questionnaire Anxiety and Depression Scale) and higher levels of well-being (measured by the WHO-5 Well-Being Index) compared with the control group. The effect was marked for those experiencing mild/moderate levels of depression and anxiety, indicating the clinical value of such low-touch early interventions. Overall, the study demonstrates that empirical research through Randomized Control Trials (RCTs) can be conducted in challenging, FCV settings through appropriate rapid training of local researchers and non-specialist providers (NSPs) at a low cost yielding scalable programmatic and policy level lessons.

## LIST OF ABBREVIATIONS

---

<b>BAM</b>	“Becoming a Man” program
<b>BISP</b>	Benazir Income Support Program
<b>CBT</b>	Cognitive Behavioral Therapy
<b>CWB</b>	Counterproductive Work Behavior
<b>DIME</b>	Design, Implementation, Monitoring, and Evaluation
<b>ERKF</b>	Economic Revitalization of Khyber Pakhtunkhwa and FATA
<b>FATA</b>	Federally Administered Tribal Area
<b>FCV</b>	Fragile, Conflict and Violence
<b>GAD-7</b>	Generalized Anxiety Disorder - 7 items
<b>GDP</b>	Gross Domestic Product
<b>HR</b>	Human Resources
<b>IDs</b>	In-Depth Interviews
<b>IEO</b>	Individual Entrepreneurial Orientation
<b>IFC</b>	International Finance Corporation
<b>IT</b>	Information Technology
<b>ITT</b>	Intention to Treat
<b>KPK</b>	Khyber Pakhtunkhwa
<b>MBCT</b>	Mindfulness-based Cognitive Therapy
<b>MSPSS</b>	Multidimensional Scale for Perceived Social Support
<b>NSPs</b>	Non-specialist providers
<b>OLS</b>	Ordinary least squares
<b>PCQ</b>	Psychological Capital Questionnaire
<b>PHQ-9</b>	Patient Health Questionnaire - 9 items
<b>PIT</b>	Personal Initiative Training
<b>PKR</b>	Pakistani Rupee
<b>PM+</b>	Problem Management Plus
<b>PP</b>	Pre-protocol Analysis

## List of Abbreviations

---

<b>PM+E</b>	Problem Management Plus for Entrepreneurs
<b>PTSD</b>	Post-traumatic Stress Disorder
<b>REBT</b>	Rational Emotive Behavior Therapy
<b>SME</b>	Small and Medium Enterprise
<b>SMEDA</b>	Small and Medium Enterprise Development Authority
<b>ToT</b>	Training-of-Trainers
<b>TREAT</b>	The Rapid Research Toolkit
<b>WBG</b>	World Bank Group
<b>WHO</b>	World Health Organization
<b>WHO-5</b>	WHO-5 Well-being Index



For the first time at such a scale, mental health problems are being recognized as existing along a continuum from mild, time-limited distress to chronic, progressive, and severely disabling conditions.



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MAIN REPORT



**Young women learn computer skills  
in Hyderabad, Pakistan.**  
Visual News Associates / World Bank.

# Introduction

## 1.1 Background

The increase in conflict and natural disasters around the world has affected nearly 132 million globally, with conflict continuing to be the main driver of growing humanitarian needs (UNOCHA, 2019). The pattern of conflict engulfing many parts of the world today is associated with long-term psychological consequences (Murthy and Lakshminarayana 2006). Parts of the Khyber Pakhtunkhwa (KPK) province and the Federally Administered Tribal Areas (FATA) of Pakistan have suffered from such armed conflict for the last 3 decades. The 2009-10 insurgency and subsequent security operations displaced an estimated 2 million people from both regions. Severe damage to infrastructure and livelihoods has negatively impacted the social and economic fabric of the entire region, which now ranks among the poorest in the country.

Epidemiological studies from these areas in Pakistan have shown high rates of common mental disorders (such as depression and anxiety) among the general population. A meta-analysis of a subset of relatively rigorous post-conflict surveys showed the prevalence of depressive symptoms to be around 17.3 percent<sup>1</sup> (Steel and others 2009). Global estimates of productivity losses due to depression are estimated to be around US\$1 trillion dollars per year globally (World Health Organization (WHO) 2017). In this context, the question of the impact of common mental disorders, such as depression and anxiety, on economic productivity in regions affected by fragility, conflict and violence (FCV) is a critical one (British Psychological Society 2011)<sup>2</sup>. Economic activity in FCV regions is heavily dominated by small and medium enterprises (SMEs) whose owners are prone to high levels of stress (Ang, 1991). In this context, it is pivotal to understand better the extent of prevalence of mental health challenges among SME entrepreneurs as well as its impact on health and economic outcomes.

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<sup>1</sup> The unadjusted weighted prevalence rate of depression across all studies was found to be 30.6 percent. A more conservative estimate, based on 26 surveys that combined diagnostic interviews with representative samples, found the prevalence across the studies to be 17.3 percent.

<sup>2</sup> Common mental disorders are defined as depression, generalized anxiety disorder (GAD), panic disorder, social anxiety disorder, phobias, obsessive-compulsive disorder (OCD) and post-traumatic stress disorder (PTSD).

Mental health, well-being and lasting economic outcomes are intimately related. The WHO defines mental health as “a state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, and is able to make a contribution to her or his community” (WHO 2014). There are several arguments to be made for why researchers interested in improving economic outcomes in a broader sense need to focus on mental health and well-being of SME entrepreneurs, rather than focusing on productivity alone. First, well-being is a multi-dimensional construct that is a robust predictor of a healthcare, productivity, and retention outcomes at the firm-level (Sears and others 2013). Second, depression in parents is associated with children’s poorer physical health, lower human capital attainment, and the onset of psycho-pathology later in life, leading to multi-generational suboptimal health and economic outcomes (National Research Council (US) and Institute of Medicine (US) Committee on Depression, Parenting Practices, and the Healthy Development of Children 2009). Finally, from a social justice point of view, freedom to achieve well-being is of primary moral importance. This freedom to achieve well-being needs to be understood in terms of people's capabilities, that is, opportunities *to do and be what they have reason to value* (Sen 2000). In this context, the Lancet Commission (2018) reframed the definition of mental health toward a more holistic notion of well-being and better quality of life, which has been well received and is pertinent to this study (Lancet Commission 2018).

The work on mental health, more broadly, has gained impetus from the recommendations of the recently convened multi-country Lancet Commission in the UK. According to the recent Lancet commission report on Global Mental Health (2018), policymakers should aim to “broaden the global mental health agenda from a focus on reducing the treatment gap for people affected by mental disorders to the improvement of mental health for whole populations and reducing the contribution of mental disorders to the global burden of diseases.” This is aligned with Sustainable Development Goal 3 (Ensure healthy lives and well-being for all at all ages). For the first time at such a scale, mental health problems are being recognized as existing along a continuum from mild, time-limited distress to chronic, progressive, and severely disabling conditions. As such,

**Mental health, well-being and lasting economic outcomes are intimately related.**

**According to the Lancet Commission of 2018, mental health services need not be conceived in a narrow sense as only relevant for those diagnosed with clinical disorders. Rather, they should be viewed as important also for those who are "at risk of poor mental health" and chronic distress.**

mental health services need not be conceived as relevant in the narrow sense, that is, as only for those diagnosed with clinical disorders. Rather, they should be viewed for those “at risk of poor mental health” and chronic distress, as well as for those who are operating in environments characterized by fragility, conflict, and violence.

However, there is very little research about interventions that could address the nexus of mental health and small businesses in rebuilding the economy of conflict-affected regions. Most interventions for SME entrepreneurs restrict themselves to improving sales or profits at the firm level (which are important for growth and job creation), but do not look more deeply at questions of quality of life, human capital, and related inter-generational effects of SME entrepreneurs. To fill the gap in this area of work, the aims of this study are threefold: 1) to develop a research toolkit to enable rapid and safe collection of data from conflict-affected settings to inform intervention development; 2) to develop a feasible and culturally appropriate training intervention to improve mental health and well-being outcomes of SME entrepreneurs; and 3) to evaluate the feasibility and impact of implementing the intervention in this population.

As peace has returned to the region, the 2012 World Bank-supported Economic Revitalization of KPK and FATA Project (ERKF) is working toward the rehabilitation of SMEs and the creation/restoration of jobs. This support is in the form of financial cash transfers, or grants, provided to individuals who then use the funds to establish and run a business in their locality. The mental health and well-being intervention, which aims to improve psychosocial and business outcomes of SME entrepreneurs, was built on the ERKF program infrastructure in KPK.

**The key questions explored in this study are:**

- What is the incidence of mental health conditions among SME entrepreneurs in low-capacity or FCV contexts? Why focus on it?
- Are there existing psychosocial interventions that can be leveraged to improve mental health among SME entrepreneurs in FCV contexts? How can these interventions be adapted to the local/ KPK context?
- To what extent is the chosen psychosocial intervention effective in improving mental health and well-being of SME entrepreneurs in the KPK region, when combined with cash grants?
- To what extent does the chosen psychosocial intervention improve business outcomes?

The first two questions are addressed through the literature review and a qualitative analysis conducted at the baseline. The midline evaluation of the intervention is used to answer the third question. As it is associated with business performance outcomes, the fourth question requires a longer period to be properly addressed. *This report, therefore, focuses on the first three questions, with the fourth being the subject of a longer-term endline assessment to be completed 18 months post intervention.*

## 1.2 Why Focus on Mental Well-Being of SME Entrepreneurs?

It is widely recognized SME entrepreneurs are a lifeline for job creation and economic growth in developing countries — especially those affected by fragility, conflict and violence (FCV). However, SME entrepreneurs deal with unusually high levels of uncertainty and stress and experience cognitive resource depletion, with attendant high psychological and physical health costs (Fernet and others 2016). They typically operate in highly competitive environments and face a substantial degree of risk and uncertainty (Kariv 2008). Often, there is no clear division between their work and family/social lives, with fatigue, irritability, and other stress symptoms spilling over into the non-work domain (Parasuraman and others 1996). Studies show that individuals with a leadership predisposition and independent work arrangements, including entrepreneurs, are more vulnerable to stress, alienation, loneliness, emotional turmoil, and burnout (Rokach 2014; Akisal and others 2005). These tendencies may lead to health problems, negatively impacting social and familial relationships, as well as productivity (Buttner 1992; Jamal 1997; Jamal and Badawi 1995; Lewis-Epstein and Yuchtman-Yaar 1991).

Boyd and Gumpert (1983) provide some of the earliest empirical evidence of this in a study that showed that up to 65 percent of entrepreneurs (out of a sample of 450) experienced physical stress symptoms at least once a week. Given the co-morbidity of stress prevalence with physical and more serious mental health conditions, there is a real risk of rising healthcare costs due to job stress for entrepreneurs (Buttner 1992; Jamal 1997; Jamal and Badawi 1995; Lewin-Epstein and Yuchtman-Yaar 1991).

Compared to large enterprises, SME entrepreneurs are at a greater risk for depression, anxiety and other mental health conditions (Akande 1994; Ang 1991; Boyd and Gumpert 1983; Cocker, Martin, Scott, Venn, and Sanderson

**Studies show that individuals with a leadership predisposition and independent work arrangements, such as entrepreneurs, are more vulnerable to stress, alienation, loneliness, emotional turmoil, and burnout.**

**In FCV contexts, the combination of regular business-related entrepreneurial stressors with the uncertainties in the external environment tend to amplify poorer psychological outcomes and weak business performance for SME entrepreneurs.**

2013). SME entrepreneurs lacking diversified capital, stable sources of income, or delegation opportunities tend to suffer from more stress and anxiety compared with their peers in salaried jobs or those working in larger firms. The high cognitive burden experienced by SME entrepreneurs can lead to weakened psychological health, which can hinder their capacity to decide and act, thereby increasing counter-productive work behaviors. This can result in lower sales turnover over the long run (Akende 1994; Dewe and Guest 1990; Harris and others 1999).

In FCV contexts, the combination of regular business-related entrepreneurial stressors with the uncertainties in the external environment can amplify poorer psychological outcomes and hamper business performance (Saraf, Rahman, Gallardo, Jamison, & Lor, 2018). General business stressors (increased competition, insufficient time or space, technological changes, conflicting demands from stakeholders, and so on) can combine with the usual

entrepreneurial stressors (role conflict, ambiguity, and overload) in an environment of uncertainty (war, displacement, traumatic events) to create high levels of unpredictability, perceived risk, and cognitive depletion among entrepreneurs. This, in turn, can lead to psycho-emotional and psycho-pathological outcomes (Ahmad and Salim 2009; Grant and Ferris 2017; Rockmore 2016; Tahir 2016).

### **1.3 How Does Mental Well-Being Affect Business Performance?**

The high cognitive burden experienced by SME entrepreneurs can lead to weakened psychological health that can, in turn, hinder their capacity to decide and act, thereby impacting the competitiveness and sustainability of their firms. Although occupational stress may initially act as a catalyst for better performance by mobilizing personal resources, stress that is too intense, frequent, or prolonged (negative arousal or 'distress'), eventually gives rise to 'strain' (Quick 1998). A recent study by Kariv (2008) found that positive stress is related to sales turnover among entrepreneurs, whereas negative stress had the opposite effect in the long run.

Recent investigations into sources of job stress among entrepreneurs find that entrepreneurs are more likely to experience higher levels of stress due to their heavy workload, as well as the assumption of risk in their business activities and operations (Akande 1994; Dewe and Guest 1990; and Harris and others 1999). Other challenges in the business environment — such as heightened competition, lack of time and space, conflicting demands from organizational stakeholders, greater uncertainty, and so on — have been shown to increase stress as well (Edwards 1992; Hall and Savery 1986). Furthermore, managing the entire business organization, which entails managing the cash flow, managing staff, dealing with the red tape, and juggling work-life balance issues, are also factors that lead to feelings of anxiety among entrepreneurs (Rythonen and Strandvik 2005).

The literature points to three mechanisms by which stress can affect the business performance of SME entrepreneurs, namely: (i) the depletion of psychological resources, which lowers performance by reducing their capacity to cope with work-related stress, as well as their ability to perform complex tasks (Fernet and others 2016; Harms and others 2017; McGuire and Botvinick 2010; Meglino 1977; Spears 2011; Vohs and others 2008); (ii) erosion of their influencing and motivating role within the organization due to anxiety and depression, which leads to a negative mood contagion effect on employees, including communication barriers, an increase in conflict and absenteeism, and lower team performance (Brummelhuis and others 2014; Harms and others 2017; Johnson 2008; Sy, Côté, and Saavedra 2005); and (iii) counterproductive work behavior as a result of reduced self-regulation capacity and weakened cognitive controls (Boye and Jones 1997; Tucker and others 2009). All these result in lower productivity, which is defined as lost value for the enterprise, typically defined as being away from work (for example, short-term absenteeism), or not being fully productive in meeting expectations while at work (defined as presenteeism) (Sears and others 2013).

Despite the strong empirical evidence regarding the poor mental health status of SME entrepreneurs, most SME and entrepreneurship interventions focus on “functioning-related interventions”; that is, interventions that help to increase the direct functioning of firms. Examples include

**Stress lowers business performance of entrepreneurs in three ways: depletes their psychological resources, erodes their motivating role in the firm, increases counter-productive work behavior.**

**Despite the strong empirical evidence regarding the poor mental health of SME entrepreneurs, very few SME support programs focus on improving the well-being of this group.**

From a social justice point of view, freedom to achieve well-being is of primary moral importance. From an economic standpoint, well-being is a multi-dimensional construct that is a robust predictor of healthcare, productivity, and retention outcomes at the firm-level.

Interventions for SME entrepreneurs should not only target improving sales or profits at the firm level, but should also look more deeply at questions of quality of life, human capital, and inter-generational effects.

increased access to finance, the linking of local firms to global value chains, skill development, technology adoption and management capacity upgrading. However, they do not tend to focus on improving the psychological well-being of the entrepreneur, which could be a path to improved productivity through the expansion of their capability to function, especially under stressful conditions typical of FCV situations (Sen 2000).

These findings lead to further questions: Why should there be a focus on well-being in projects related to SME entrepreneurs? Why should researchers go beyond the measurement of productivity? There are three arguments, an economic one, a generational one, and a moral one, to support the importance of well-being among SME entrepreneurs and adult breadwinners. First, well-being is a multi-dimensional construct that is a robust predictor of healthcare, productivity, and retention outcomes at the firm-level (Sears and others 2013). Second, depression in parents is associated with children's poorer physical health, lower human capital attainment, and the onset of

psycho-pathology later in life, leading to multi-generational suboptimal outcomes (National Research Council (US) and Institute of Medicine (US) Committee on Depression, Parenting Practices, and the Healthy Development of Children 2009). Finally, from a social justice point of view, freedom to achieve well-being is of primary moral importance. This freedom

to achieve well-being to achieve well-being needs to be understood in terms of people's capabilities, that is, opportunities to do and be *what they have reason to value* (Sen 2000). Thus, interventions for SME entrepreneurs should not only target improving sales or profits at the firm level, but should also look more deeply at questions of quality of life, human capital, and inter-generational effects. Higher well-being leads to more diverse outcomes, above and beyond productivity.

Despite the strong empirical evidence regarding the poor mental health status of SME entrepreneurs, market failures and constraints in FCV-affected countries prevent appropriate support services from reaching them. These constraints are well-acknowledged in the economic, public

health, and anthropology literature: information asymmetries in the health system that collects information only from in-coming patients, a crippling shortage of trained health providers, cultural norms that regard adult breadwinner (esp. men) as invincible, to name a few.

Even though there are several programs targeting SME growth and entrepreneurship policy in FCV contexts, most of these do not focus on improving the psychological well-being of entrepreneurs, which could be a path to improved productivity through the expansion of their capability to function (Sen 2000). To the best of our knowledge, almost no empirical work exists in the domain of understanding what would enable a sense of greater well-being among SME entrepreneurs, and whether enhanced well-being is linked to better business outcomes. These are the gaps the study aims to fill.

In 2018, an intervention pilot was conducted by the World Bank Group team among SME entrepreneurs in conflict-affected parts of Pakistan to improve mental health and well-being outcomes among this group. This study documents the incremental effects of the group cognitive behavioral training (CBT) intervention - over and above the effect of receiving cash grants - on reducing depression and anxiety, as well as improving well-being among SME entrepreneurs in conflict-affected parts of Pakistan. Entrepreneurs in the treatment group received the intervention as well as cash grants, whereas those in the control group received only cash grants. The study, conducted with 235 SME entrepreneurs, found that CBT leads to improvements in mental health outcomes. Three months after the intervention, entrepreneurs in the treatment group experience statistically significant reduction in depression and anxiety symptoms (measured by the Patient Health Questionnaire Anxiety and Depression Scale) and higher levels of well-being (measured by the WHO-5 Well-being Index). The decline in prevalence of depression and anxiety (odds ratio of 0.46 relative to control group after 3 months) was also large, though not statistically significant. An endline survey is planned at 18 months to assess the longer-term impact of the intervention on mental health and well-being as well as its impact on business performance.

The intervention pilot was not aimed at resolving the market failures mentioned above but it helped to test two mechanisms that contribute to alleviating them. On the supply side, the pilot tested whether rapidly trained

**Almost no empirical work exists in the domain of understanding what would enable a sense of greater well-being among SME entrepreneurs. This is the gap the study aims to fill.**

**The study, conducted with 235 SME entrepreneurs, found that CBT leads to improvements in mental health outcomes.**

The study also tested whether rapidly trained non-specialist providers (NSPs) could help in executing psychosocial intervention effectively in low-resource settings and what type of framing could help navigate cultural barriers in order to increase demand for such services among adults.

non-specialist providers (NSPs) could help in executing psychosocial well-being interventions effectively. On the demand side, it gathered evidence on the type of framing and messaging which would help navigate the cultural norms and increase demand for such services. These results would inform policy decisions on how to scale approaches that were piloted in addition to undertaking a systematic reform of the health system. These reforms are, however, outside of the scope of discussion of this study.



Sunehri Masjid Peshawar Pakistan.  
SAKhanPhotography / iStock

# Rapid Needs Assessment

Conducting research in a post-conflict setting is challenging for a number of reasons, including the scarcity of trained human resources, security concerns that spawn restrictions on movement of vulnerable populations, and the stigma related to mental health issues, which makes seeking help difficult for affected individuals. This requires rapid but robust research methods that could enable local non-specialists to conduct research to inform program development. To seek an in-depth understanding of the contextual factors and training needs of SME entrepreneurs in FCV settings, a Rapid Needs Assessment was conducted with 17 SME entrepreneurs of KPK and FATA.

The Rapid Needs Assessment found evidence of the unacknowledged mental well-being issues experienced by SME entrepreneurs and their common causes. The study explored the nature of the problem, as well as perceived causes and their effects. It also offered some current practices to deal with the impact of these challenges. According to the findings, SME entrepreneurs described a number of depression-type symptoms such as *“agitated mood, disturbances in diet and sleep, nervousness, loss of interest, and inability to concentrate on work”* (Saraf, Rahman, Hamdani, Jamison, and others, 2018). They recognized the impact of these symptoms on their productivity and sense of well-being, which in turn led to a vicious cycle of further stress.

## 2.1 Methodology

The objectives of rapid needs assessment were:

- a. To gain a quick sense of the contextual factors within which the target group operates, risk factors, cultural values, and preferred mode of delivery by conducting interviews with beneficiaries.
- b. To develop a training curriculum to address the psychosocial needs of SME entrepreneurs.

Image 1. Study Sites



Source: World Bank Group Cartography Unit (2019).

### Study sites

The in-depth interviews with beneficiaries were conducted with a sub-sample of SME entrepreneurs in the Swat and Peshawar districts of KPK (Image 1). A brief description of each study area is described below.

### *Swat*

Swat is a district of KPK with an estimated population of over 2.3 million, with a male to female ratio of 1:3. Seventy percent of the population live in rural areas, with an average household size of 8.8 persons. Male literacy measured as education of 10 or more years is 43 percent, compared to female literacy of 14 percent (Pakistan Census 2017). The Swat valley experienced armed conflict between 2007 and 2011.

### *Peshawar*

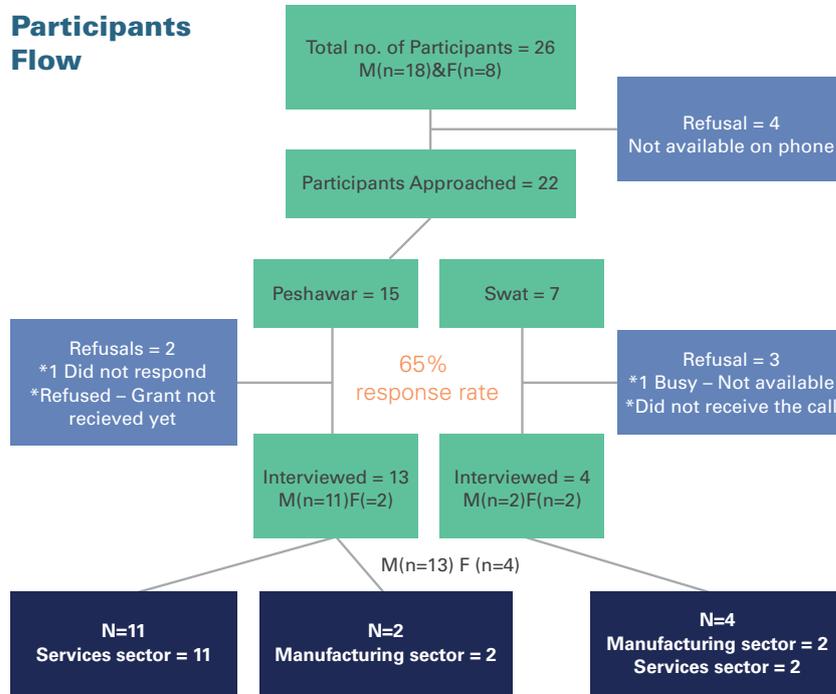
Peshawar is the capital city of KPK province. The population of Peshawar is 1.97 million, with a male to female ratio of 1:1. Fifty-two percent of the population lives in rural areas, with an average household size of 8.6 persons. Male literacy measured as education of 10 or more years is 56 percent, compared to female literacy of 26 percent (Pakistan Census 2017). From 2013 to 2016, Peshawar also faced many terrorist attacks, including the Army Public School (APS) Peshawar incident in 2014.

### *Study sample*

The in-depth interview sample of the Rapid Needs Assessment included SME entrepreneurs, who were grantees of the Economic Revitalization of Khyber Pakhtunkhwa and FATA (ERKF) program. The ERKF employs the following selection criteria for its grantees. The SME is a citizen of Pakistan doing business in KPK or FATA, and employs a minimum of 3 and a maximum of 100 persons. The SME was doing business before the 2009-10 humanitarian crisis and his/her business was affected by the crisis. The SME is located in target sectors and locations supported by the project. The grants are used as working capital for reconstruction of basic infrastructure and/or acquiring/repairing machinery and equipment. Over 90 percent of the grant recipients were male.

A purposive sampling technique was used to recruit the participants for the needs assessment. The SME entrepreneurs were selected to represent the distribution of key variables such as age groups, gender, education status, business types, and geographical spread. From a list of 34 SME entrepreneurs shared by the ERKF, 26 SME entrepreneurs from KPK and FATA were purposively selected for the conduct of In-Depth Interviews (IDIs). Of the 26 participants, 17 participants were interviewed (13 from Peshawar and 4 from Swat). Two participants could not be contacted using the given contact details, 7 participants could not be interviewed due to their unavailability and/or unwillingness to participate in the study (Figure 1). From a total of 8 female participants, 4 women agreed to take part in the study (for a response rate of 50 percent). However, the representation of women in

Figure 1. Flow of Study Participants



Source: World Bank Group, 2018.  
 Note: F= female; M= male; N=number.

the study sample was considered fair because of the relatively low proportion of women running businesses in KPK. Various reasons were cited by the female participants for their inability to participate. These included health problems, an impending grant of loans, and family business being run by multiple family members. There was diversity in participants' education, ranging from no schooling to a PhD.

Participants were interviewed in two phases, using a semi-structured interview guide. In the first phase, 8 participants were interviewed, and the data was analyzed. The semi-structured interview guide was revised in light of the findings from the first phase of interviews to cover all aspects of program development and delivery. In the second phase, 9 in-depth interviews were conducted.

**Image 2.** Women Entrepreneurs in the Cognitive Behavioral Training



*World Bank Group, 2018.*

### *Interviewer profiles*

Eight interviewers worked in four teams to conduct the in-depth interviews. The interviewers represented diverse educational and professional backgrounds to match the characteristics of interviewees, such as: male and female interviewers, psychologists with Pashto speaking skills, business graduates, and PM+ trainers and program managers experienced in the conduct of in-depth interviews.

Before conducting the interviews, interviewers received a refresher training course on conducting in-depth interviews. The training included role playing to enhance the interviewing and probing skills of the interviewers. The refresher course also helped to develop and refine the semi-structured interview guide.

### *Data collection*

Qualitative in-depth interview techniques were used to explore the priority problems and health concepts (especially the concepts of well-being) among the SME entrepreneurs from the local perspective. An iterative process was followed in conducting the in-depth interviews. The objective of the in-depth interviews was to explore, in the context of KPK and FATA, what problems SME entrepreneurs face, as well as perceived causes and effects, current practices, and suggestions for stress management for SME entrepreneurs.

Seventeen interviews were conducted with purposively selected SME entrepreneurs to explore the afore-mentioned questions. The results of the interviews provided details about a range of problems faced by the SME entrepreneurs in KPK and FATA. Based upon the findings of these interviews, a second round of interviews was conducted to explore key issues around program development and delivery. This iterative process allowed for building upon the findings, and then specifically exploring issues around key areas of interest, such as the impact of adversity on SME entrepreneurs, the need for a Cognitive Behavioral Therapy (CBT)-based curriculum, a profile of potential trainers, and program delivery aspects.

The key question asked from all the participants was: **What are the challenges faced by SME entrepreneurs working in the challenging circumstances of KPK and FATA?**

Interview guides were developed to explore the research questions. To ensure that all relevant areas to program development and implementation are covered and explored, some additional research questions were iteratively added and recorded in the topic guide during the data collection process (see Appendix 3 for full interview guide).

The informed consent for conducting the training need assessment was sought by the World Bank Group. Once informed consent was obtained, the participants were contacted on their mobile phones by the WBG field coordination team to confirm their availability for the interviews. The venue for the interviews was selected to suit the availability of the participants. As a result, some of the participants were interviewed at their business sites, and some were interviewed at meeting venues that were convenient for them to reach. Seventeen participants agreed to be part of the study.

The interviews began by welcoming the participants and providing an orientation for them about the purpose of the interview. The interview team sought written informed consent from the study participants. The participants were asked a single open-ended question designed to explore all the problems faced by the SME entrepreneurs in KPK and FATA. The key question asked from all the participants was: *What are the challenges faced by SME entrepreneurs working in the challenging circumstances of KPK and FATA?*

A number of issues were explored, including problems, perceived causes and their effects, current practices to deal with the impact of these challenges, and recommendations for program development.

The average duration of the in-depth interviews was 60 minutes. All interviews were audio recorded and notes were taken to elaborate key aspects. The recordings of the interviews were then transcribed by the same team members who conducted the interviews.

**Image 3.** Stress Management Through Breathing Exercises



*World Bank Group, 2018.*

### *Data analysis*

Data collection and analysis were carried out simultaneously. The analysis of the qualitative data was conducted using a thematic analysis approach. The audio recorded interview data was transcribed into Urdu. To gain familiarity with the raw data, the transcribed data was read and reread by the study team. During the process of familiarization, the emerging categories were highlighted. These emerging categories were compared and contrasted to identify any patterns in the raw data.

A thematic table was developed to organize the emerging categories. Emerging categories that fit under similar patterns or meanings were placed within the corresponding patterns and coded (using sub-themes). Each interview was analyzed by two researchers and then reviewed by the team lead. Any discrepancies between the analyses were discussed by the analysis team. These discussions were used as a means of refining the sub-themes. The sub-themes were analyzed along with the supporting data (quotes) to fit together in a meaningful way to develop and interpret themes.

Data quality was ensured during data collection through the provision of feedback by the team lead. Analyzed data provided information to develop the training curriculum.

## 2.2 Findings

This section describes the results of interviews conducted to explore the training needs of SME entrepreneurs in KPK and FATA.

**Table 1.** Demographic Characteristics of Study Participants

Variable	Categories	f (%)
<b>Gender</b>	Males	13 (76.4)
	Female	4 (23.5)
<b>Age range</b>	20 – 40	8 (48)
	41 – 60	9 (52)
<b>Education</b>	No Schooling	2 (11)
	10 grades	3 (17)
	12 grades	3 (17)
	14 grades	1 (5)
	16 grades	5 (29)
	PhD	3 (17)
<b>Years of Experience</b>	Less than and equal to 10 years	9 (52)
	More than 10 years	8 (48)
<b>Nature of Business</b>	Service Sector	13 (76.4)
	Manufacturing Sector	4 (23.52)

Note: n = 17

Source: World Bank Group, 2018.

### Demographic characteristics of participants

Demographic information such as gender, age, years of education, years of work experience, and the type of businesses of study participants is presented in Table 1. The study sample was heterogeneous according to gender, age, education, years of experience and the nature of the businesses.

Variability in the nature of businesses of SMEs was observed. Most of the participants were from the service sector, with variability in the scale of their businesses. Two of the participants owned microenterprises, that is, boutiques, handicraft and tailoring shops, and mobile repairing shops. Seven were owners of small enterprises, such as hotels and restaurants, educational institutes (academy), shoe shops, cosmetics shops, and mobile shops. The remainder of the participants owned medium enterprises, such as an

Information Technology (IT) company, the owner of a hotel and restaurant, an education institution (runs 3 institutions), a petrol station, a hospital and labs (medical complex), a cosmetic surgery clinic (surgery clinic with 6 employees), and a wood and furniture products business (see Appendix 2 for full additional information on participants).

The qualitative data was analyzed using a thematic analytical approach. The four major themes of the qualitative data that emerged from the analysis were: (1) causes of perceived stress; (2) manifestation of stress; (3) impact of perceived stress on SME entrepreneurs; and (4) implications for the intervention program being developed for SME entrepreneurs in KPK and FATA. The perceived causes of stress among the SME entrepreneurs, as identified in the thematic analysis of IDIs were: i) security and safety concerns; ii) financial difficulties; iii) lack of opportunities to learn technical and soft skills required to do business; iv) disturbance in family life; and v) problems specific to female SME entrepreneurs of the KPK and FATA regions of Pakistan. These problems manifested themselves in the form of: low productivity; nervousness; loss of interest and inability to concentrate on work, resulting in an agitated mood; disturbances in diet and sleep and problems in family life, which further impact their well-being and productivity. These resulted in a vicious cycle of low productivity and impaired well-being of SME entrepreneurs working in KPK and FATA.

A snapshot of key findings of the Rapid Needs Assessment is provided in Box 1, followed by a detailed analysis of the qualitative data with key themes, sub-themes, and examples of the major causes of stress. These themes informed the development of the training curriculum.

**Box 1: Key Findings of the Rapid Needs Assessment**

i. **Evidence of the prevalence of depressive symptoms among SMEs entrepreneurs**

The recent conflict and unrest in the KP region affected the livelihoods of most beneficiaries. These circumstances have put a lot of pressure on local entrepreneurs, and taken its toll on their well-being, as well as their businesses, in a number of ways. The entrepreneurs described experiencing a number of depression-type symptoms such as agitated mood, disturbances in diet and sleep, nervousness, loss of interest and inability to concentrate on work. They recognized the impact of these symptoms on their productivity and sense of well-being, which in turn led to a vicious cycle of further stress.

ii. **Lack of social and emotional support for female entrepreneurs**

Female SME entrepreneurs described additional stressors of sociocultural barriers for working women, with some reporting a lack of social and emotional support from their own families.

iii. **Priority problems faced by the SME entrepreneurs**

The priority problems faced by the SME entrepreneurs relate to safety and security issues in an unstable and challenging business environment. They face continuing financial difficulties as the general economy of the area is poor. They also identified a lack of opportunities to enhance their technical and soft skills necessary for running a successful business.

iv. **Need for psycho-social intervention**

The assessment identified the utility of a psychological intervention program, based on the principles of Problem Management Plus (PM+), to improve the resilience, productivity and personal efficacy of SME entrepreneurs in KPK and FATA.

*Source: World Bank Group, 2018.*

## Major causes of perceived stress

### i. Safety and security concerns

The participants described security issues as the root cause of all their problems. There has been instability in the region for the past few decades, including frequent terrorist activities. People are in constant fear for their safety and the safety of their loved ones. These circumstances have led to decreased business activities (Saraf, Rahman, Hamdani, Jamison, and others, 2018).

*“Due to the fear (of bomb blasts/terrorist activities), people do not want to invest in the expansion of their businesses because if the situation worsens, all of their investments will be in loss.” (IDI-005)*

Every activity is strictly monitored through on-going surveillance by law enforcement agencies to ensure the safety of all citizens. This on-going surveillance restricts business activities, and makes it difficult for foreign business delegates to visit KPK. It also complicates the organization of marketing, branding and promotional activities, the organization of sales exhibitions, as well as establishment of training and capacity-building activities for SME entrepreneurs. All these surveillance activities are impeding the business opportunities for SME entrepreneurs working in KPK and FATA.

*“Due to security issues, trainers from outside the city do not come to train people here.” (IDI-009)*

*“Army official[s] stop and check ... every check-post. It is really time consuming as it takes[an] additional 2-3 hours [when] ... coming from outside the city.” (IDI-006)*

With security concerns and frequent terrorist activities in KPK and FATA, the government has made it compulsory for all organizations to ensure the safety of their staff. As such, SME entrepreneurs are required to spend extra time and money in ensuring the safety and security of their staff — at the expense of their personal lives and work productivity.

*“Due to security concerns, we have placed extra security measures. ... I have to [stay] ...late sitting in the school until every student has reached their homes (safely).” (IDI-003)*

## ii. Financial difficulties

Since most businesses were either destroyed or experienced significant drops in sales due to the security crisis, financial difficulties were reportedly widespread. Most entrepreneurs say that they lack the financial resources to reestablish and sustain their businesses. As such, they have resorted to loans, which become difficult to repay due to unfavorable economic conditions for businesses, including inflation (which lowers sales).

The themes of security and financial difficulties are interlinked. Security issues have resulted in unfavorable economic conditions for doing business, further impeding the chances of success for any businesses, including their ability to repay their loans. As overall economic conditions have deteriorated and inflation has risen, people have become thrifty in their expenses. Thus, business sales have declined.

*“Lack of financial support is the biggest issue. I had to give back my loans for which I asked my relatives for money and it was a very embarrassing situation (for me).” (IDI-021)*

*“(Due to [the] security situation) people are afraid for their lives; therefore, the customers do not come. Thus, due to losses, people leave their businesses.” (IDI-002)*

*“If someone has made an investment and the market rate of the product drops due to security issues, we have to bear [the] losses.” (IDI-005)*

## iii. Lack of appropriate skills

Entrepreneurs perceive that they lack the appropriate technical and soft skills to run their businesses, and view such deficiencies as barriers to achieving higher productivity and product quality. Low-quality products result in low returns on investment, and decreased profitability and earnings for everyone. Consequently, there is decreased enthusiasm for running a business in such circumstances.

*“People do not know how to keep their products secure, claim copyright, how to commercialize their products. Actual industrial skill training should be conducted.” (IDI-004)*

*“People lack professionalism. Even when they are running their businesses, they do not know how to present their work and themselves.” (IDI-017)*

#### **iv. Disturbance in family life**

Security concerns, financial problems, and a lack of technical and soft skills result in perpetual losses in businesses operating in conflict-affected areas. Such adversity impacts the well-being and productivity of SME entrepreneurs by impeding their ability to keep up with the expectations of their families and coworkers, leading to distress and frequent disagreements in their personal, professional and family lives. The unstable socio-political environment, financial issues, and long working hours disturb the work-life balance of SME entrepreneurs, resulting in impaired family and social life. Extended work hours mean that people do not get time to spend with their family members and relatives.

*“We get tired when we stay [late] in [the] office..., the child expects that I will take him out, but due to these situations, we say no to [the] kids. Due to [a] shortage of time, we are unable to fulfill our promises. Therefore, there is a stress when we do [not meet] a ... commitment with someone.” (IDI-003)*

Distressed due to day to day difficulties in doing business and unable to meet the expectations of family members, the SME entrepreneurs reported frequent conflicts with family members, which sometimes led to serious fights. The situation becomes even worse if the family members are not understanding and supportive of SME entrepreneurs.

*“Due to constant stress, there are frequent issues with the family, such as issues with [the] wife, with parents and siblings, etc.” (IDI-005)*

*“Due to these challenges, the person becomes agitated. There are quarrels between husband and wife and sometimes this leads to divorce.” (IDI-008)*

*“If the business is not flourishing, it causes tension within the family.... If the family members console him that it will get better again, 50 percent of the problem will be solved.” (IDI-005)*

#### **v. Social and emotional support for female entrepreneurs**

While exploring the situation facing the SME entrepreneurs of KPK and FATA, it was found that there were some problems that were specifically relevant to female SME entrepreneurs. These problems included social and cultural barriers for female SME entrepreneurs, a lack of technical skills, household responsibilities and a lack of financial and emotional support from their families. The participants noted the limited training opportunities for female SME entrepreneurs to build their capacity and professional skills. They also cited the fact that there are few training institutes for female entrepreneurs. Furthermore, even when such training opportunities are available, it is very difficult for a female SME entrepreneur to attend such training without family support.

*“There is no school or (training) institute ... [for female SME entrepreneurs]. Females face a lot of challenges in filling grant/loan forms because they do not know how to apply, and for that they are dependent on male members of their family (father, brother and husband to apply for such grants).” (IDI-001)*

Maintaining work-life balance for female SME entrepreneurs in KPK and FATA is especially challenging. A female SME entrepreneur seeks to fulfill her different roles as a mother, daughter, wife, and a business woman, which makes it difficult for her to effectively manage her business and household responsibilities without family support.

*“They do not have family support to run their businesses. If she has to work, who is going to take care of her four kids? The peak hours of her work are spent in taking care of her children.” (IDI-001)*

*“The female SME entrepreneurs live in a joint family system, yet they do not have family support. They face restrictions from husband[s] and in-laws, who don’t allow her to work.” (IDI-001)*

### **Manifestation and impact of stress**

Chronic adversities prevailing in KPK, such as security threats, financial problems and lack of business activities, manifest themselves in the form of ‘**distress**’ on the part of SME entrepreneurs. The feelings of distress described by the participants included the inability to concentrate on work, poor sleep and appetite, low self-esteem, and disturbed daily routines. These feelings of distress also included fears about the safety and security of their loved ones, flashbacks and thoughts of traumatic experiences and events, and anxiety and apprehension related to the future of their businesses. The participants linked these feelings of distress to low mood and productivity, impaired quality of life, and poor self-esteem.

*“Whenever I am reminded of the Army Public School incident, for an hour or two, I am unable to concentrate on work. My attention gets diverted from my main work. It affects my productivity and creativity. I am unable to do the innovation that I am trying to do.” (IDI-003)*

*“I witnessed [the] Qissa khuwani bomb blast. It happened near to my shop. That was a terrible scene; the (human) body parts were scattered in front of my eyes. Some bodies were missing [a] neck, others were missing [a] head. That was an extreme event.” (IDI-021)*

*“Stress disturbs your daily routine; [your] diet, sleep pattern and you stay awake [the] whole night and go to [the] office in late hours. This disturbs the whole business cycle.” (IDI-018)*

*“The distress sometimes caused negative thinking, hopelessness and agitation, leading to suicidal thoughts.” (IDI-001)*

*“(In challenging times) one becomes agitated. When the (work) pressure increases (challenges and stakes are high), the person gives up saying that I cannot do business any more. He feels that he has an ill fate.” (IDI-008)*

Distress among SME entrepreneurs not only impacted their well-being, but also affected their family life and business activities. They described negative thoughts about themselves, such as feeling of incompetence or low self-esteem, which not only adversely impacted their performance at the workplace, but also resulted in family conflicts, leading to divorce or separation between a husband and wife. All these challenges affected SME entrepreneurs’ abilities to make decisions, as well as their ability to deal with challenges and manage problems — ultimately affecting their overall well-being.

*“Due to pressure (of working in a challenging context), one gives up his or her work as he or she thinks that I am not going to (make it) work, people become mentally ill.” (IDI-008)*

*“Our self-esteem is hurt. We are suffering the most. This (feeling) leads to distrust among the people.” (IDI-003)*

Long-term distress results in the inability of SME entrepreneurs to problem solve and innovate, leading to lower productivity and quality of work. Consequently, the return on investment is inadequate, impacting the income streams and financial well-being of SME entrepreneurs. Sometimes the business difficulties become too much for entrepreneurs to continue doing their businesses. Table 2 summarizes the key themes discussed thus far.

*“When someone is distressed, they are unable to work.” (IDI-003)*

*“The focus gets diverted from the main work; the productivity is affected.” (IDI-003)*

*“You cannot enjoy your work, you do not get [the] required output. Your customers, your boss and your staff remain unhappy.” (IDI-004)*

**Table 2.** Thematic Analysis of the Rapid Needs Assessment

Themes	Sub-themes	Example/codes
Major causes of perceived stress	Security and safety concerns	Ongoing surveillance by law enforcement agency Unstable security situation
	Financial difficulties	Lack of financial resources to meet family and business needs Difficulty in obtaining business loans Unfavorable economic conditions for business Unfair policies related to loans and taxation
	Disturbance in family life	Expectations of family members (financial and family time) Frequent disputes and quarrels within the families Lack of technical skills (operating machinery, IT skills, and so on)
	Lack of opportunities to develop skills	Lack of technical skills (operating machinery, IT skills, and so on) Soft skills (communications skills, marketing and branding skills, and so on)
	Problems specific to female entrepreneurs	Lack of technical skills related to business Lack of training opportunities Constraints in doing business due to unavailability of financial resources from the family Household responsibilities Lack of a support system including, financial and emotional support
Manifestation and impact of perceived distress		Low productivity, nervousness, loss of interest, and inability to concentrate on work Agitated mood, disturbances in diet and sleep Problems in family life
Implications for training	Content	Relevance of training curriculum to the problems of SME entrepreneurs (branding of intervention for SME entrepreneurs, narrative relevant to the challenges faced by SME entrepreneurs, case examples related to real life scenarios relevant to the business and personal lives of SME entrepreneurs, and outcomes related to improved functioning and productivity)
	Implementation and logistics	Trainer characteristics (mental health expert) - Gender matching is important - Good communication skills Training groups to be organized according to key variables such as age, gender, education, and type of businesses Venue, duration and delivery of training workshops Challenges for female SME entrepreneurs

Source: World Bank Group, 2018.

*“Your investment does not yield [the] required outputs. The return on investment is reduced. You feel distressed and fatigued and [are] unable to enjoy your work.” (IDI-004)*

## 2.3 Discussion

The Assessment provided useful insights into the problems faced by the SME entrepreneurs working in the challenging settings of KPK. The potential beneficiaries of the psychosocial training program for SME entrepreneurs are a heterogeneous group, with a variety of backgrounds. Each group is also confronted by a different set of challenges. However, the ‘feeling of distress’ due to working in a challenging context was a common theme. Distress not only resulted in inability to concentrate on work, low self-esteem, anxiety about future of their businesses, etc., but also caused feeling of negativity, hopelessness, and agitation — leading to suicidal thoughts in some cases. These, in the long-term, negatively affected well-being and productivity of these entrepreneurs, and led to low return on investments.

The Assessment identified the potential utility of a psychological intervention program to improve the resilience, productivity, and personal efficacy of SME entrepreneurs in KPK and FATA. It also highlighted the need to deliver training in the local language (Urdu), form groups based on ‘affinity’ (that is, key characteristics such as gender, education, and business type), and hold sessions in a central location that is accessible, acceptable, and safe for both male and female entrepreneurs. These provided useful guidance in the design of the intervention.



**Sunrise in Pakistan.**  
Muhammad Muzamil / Unsplash

# Intervention Development and Planning

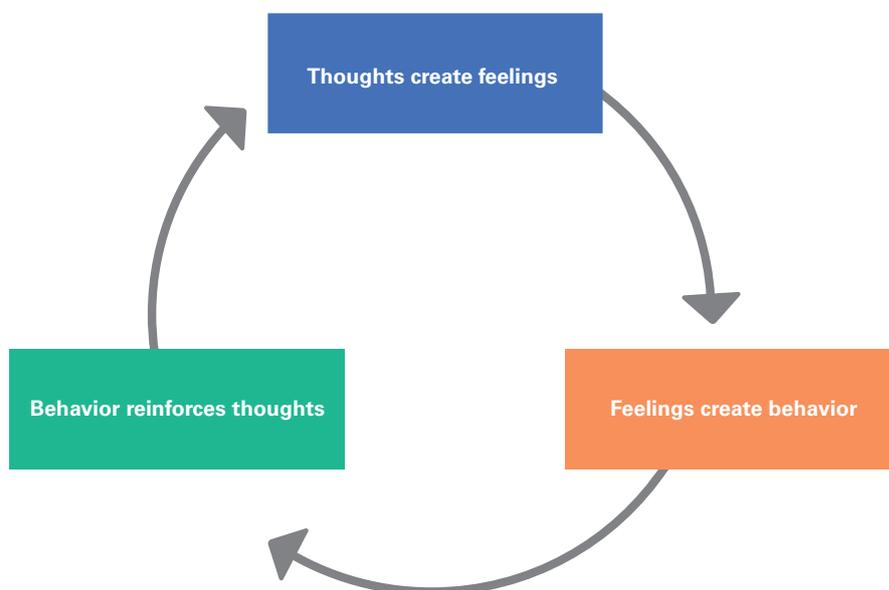
Intervention development followed two steps: reviewing the global literature on relevant interventions to promote positive psychological responses to stressful situations among non-clinical adult populations, and then adapting it to the local context in KPK (should a relevant curriculum exist that can be leveraged). Fortunately, behavioral economics and cognitive psychology provide a set of tested tools to address stress and cognitive resource depletion, including restoration of emotional well-being in the workplace. The next section summarizes some of these tested tools before moving on to adapting them to the local context of SME entrepreneurs in KPK.

## 3.1 Literature Review of Relevant Psychosocial Interventions

One key approach to addressing stress and improving emotional well-being found across psychological interventions is Cognitive Behavioral Therapy (CBT). CBT has been commonly used in psychological settings, and more recently, in economic interventions with youth and adults in FCVs. However, greater exploration of this approach in the context of mental health improvements for entrepreneurs in FCV situations is required.

The simple idea behind CBT (Figure 2) is that an individual's unique patterns of thinking (cognition), feeling, and behaving are significant factors in how they experience their surroundings and the type of actions they take, both good and bad. These patterns have a significant impact on performance. It follows then that addressing these patterns — where they have become maladaptive due to mitigating circumstances — can change the experience of entrepreneurs in the world, including their performance levels (Martin 2017). CBT workshops, led by trained facilitators, can help to generate a positive outlook to develop resilience, greater decision-making abilities, and strengthened willpower. CBT tends to be short (3-4 months), and inexpensive (about US\$300-\$750 per participant). It can also include somatic interventions, such as deep breathing exercises. In some cases, CBT has been delivered by Non-Specialist Providers (NSPs) with positive results.

**Figure 2.** Cognitive Behavioral Therapy Framework



Source: Cognitive Behavioral Therapy LA (<http://cogbtherapy.com/about-cbt/>).

Traditionally, CBT has been used in the context of mental health, where it has been shown to successfully reduce depression across various demographic groups (Craigie and others 2009; Fava and others 2004; Kessler and others 2009; Mataix and others 2015; Mohr and others 2005; Spector and others 2014). Evidence of successful applications of CBT and similar psychosocial interventions is now growing to include non-mental health areas as well. One of the most effective applications of CBT is the “Becoming a Man” (BAM) program, which succeeded in significantly reducing violent crime arrests and improving both school engagement and graduation rates among at-risk adolescents in Chicago. The changes can be attributed to slowing down the thought process of individuals to allow for “slow,” deliberative reflection to override “fast,” automatic decision-making (Heller and others 2017).

A similar study in Liberia used a CBT module designed to foster self-regulation, patience, and a non-criminal identity and lifestyle for at-risk youth. It succeeded in dramatically decreasing crime and violence (especially when followed by a cash grant (Blattman and others 2017)). More recently, a number of trials have been conducted using the CBT-informed Problem Management Plus (PM+) module. One such study in Peshawar, Pakistan used a group-based CBT module to reduce complaints of depression by nearly 60 percentage points (relative to the baseline) among women with common mental disorders (Rahman and others 2019). A study in the Netherlands, conducted with self-employed

The literature is relatively scant when it comes to rigorous impact evaluations of CBT-based approaches for entrepreneurs, which represents an area of opportunity for this study.

individuals, used two types of CBT. One was delivered by psychotherapists and the other was provided by labor experts. The goal was to successfully reduce the number of sick days taken due to psychological complaints (for example, anxiety, depression, burnout), and improve psychological outcomes (Blonk and others 2006).

Some non-CBT approaches, also based on psychology, have proven effective to improve business outcomes as well. In another experiment, an action-regulation training approach, focusing on self-regulation and active behavior in entrepreneurship, improved personal initiative behavior and led to increases in sales (27 percent) and the number of employees (35 percent) (Frese and others 2016). Using

a similar approach, a more recent study in Togo used a psychology-based, personal initiative training, which taught proactive mindset and focused on entrepreneurial behaviors. It led to an increase in firm profits by 30 percent (compared to an 11 percent increase with traditional business training) (Campos and others 2017). In both studies, however, there was no baseline verification to assess whether the participants were experiencing mental health challenges, and whether the training improved its prevalence.

The utilization of CBT-based approaches to mitigate stress and build psychological capital appears promising. The literature suggests a range of available psychological training curricula that aim to reduce psychological distress. Each of these curricula has been tried across various contexts with distinct target groups and have shown varying degrees of success in reducing psychological distress (Saraf, Rahman, Gallardo, and others, 2018). A summary of the core themes, structure, and delivery of each curriculum are provided in Table 3. However, it is worth noting that the literature is relatively scant when it comes to rigorous impact evaluations of CBT-based approaches for entrepreneurs, which represents an area of opportunity for this study.

**Table 3.** Comparison of Common Psychological Intervention Curricula

Intervention	Standard Themes	Structure and Delivery
<b>Cognitive Behavior Therapy (CBT)</b>	<ol style="list-style-type: none"> <li>1. Recognizing automatic thoughts (understanding and identifying thoughts/ beliefs and subsequent reactions; thinking report)</li> <li>2. Thinking of new ways to respond (slowing down automatic thoughts, devising alternative responses, responding to conflict rational self-analysis).</li> <li>3. Social mobilization (community connections, how actions affect others; decision-making scenarios)</li> </ol> <p>(CBT 2.0 Curriculum, Ideas42 and Crime Lab)</p>	<p>Group or individual; repeated long-term sessions (over 3-4 months), also utilizing feedback and homework. Delivered in-person, in groups, over the phone, Internet, through videos, and so on. Mostly delivered by trained facilitators with varying levels of expertise.</p>
<b>Mindfulness-based cognitive therapy (MBCT)</b>	<ol style="list-style-type: none"> <li>1. Awareness and automatic pilot</li> <li>2. Living in our heads</li> <li>3. Gathering the scattered mind</li> <li>4. Recognizing aversion</li> <li>5. Allowing/letting be</li> <li>6. Thoughts are not facts</li> <li>7. Taking care of self</li> <li>8. Maintaining and extending new learning</li> </ol> <p>(Segal, Williams and Teasdale 2013)</p>	<p>8 weekly group sessions of approximately 2 hours each, plus a 6-hour practice session. Individual daily homework in between sessions, which can be delivered online or through trained facilitators.</p>
<b>Rational Emotive Behavior Therapy (REBT)</b>	<ol style="list-style-type: none"> <li>1. Activating event</li> <li>2. Beliefs (rational and irrational)</li> <li>3. Consequences</li> <li>4. Disputing irrational thoughts/feelings</li> <li>5. Effective adaptation</li> </ol> <p>(David and others 2005)</p>	<p>Adaptable: individuals, couples, families or groups; facilitated by trained therapists; higher number of sessions is better.</p>
<b>Problem Management Plus (PM+)</b>	<ol style="list-style-type: none"> <li>1. Managing stress</li> <li>2. Managing problems</li> <li>3. Get going, keep doing</li> <li>4. Strengthening social support</li> </ol> <p>(WHO 2016)</p>	<p>Five weekly group and individual sessions of 90 minutes and 3 hours each, respectively. These can be adapted for groups. They would be delivered by trained, lay-persons, that is, non-mental health specialists.</p>
<b>Personal Initiative Training (PIT)</b>	<ol style="list-style-type: none"> <li>1. Self-starting behaviors</li> <li>2. Innovation, identification and exploitation of opportunities</li> <li>3. Goal-setting</li> <li>4. Access to finance</li> <li>5. Planning</li> <li>6. Feedback</li> <li>7. Overcoming obstacles</li> <li>8. Individual project</li> </ol> <p>(Campos and others 2018)</p>	<p>Twelve half-day group sessions across four weeks, including 36 hours of instruction. There would be group and individual components. The individual component would include personalized sessions for four months. It would also include three-hour long business visits by trainers.</p>

Source: Saraf, Rahman, Gallardo, and others, 2018.

Among the several available curricula that build on CBT, the Problem Management Plus (PM+) curricula was chosen and adapted for this intervention...

### 3.2 Appropriate Curricula for KPK Entrepreneurs

The Rapid Needs Assessment conducted among the entrepreneurs of KPK revealed a high level of *unrecognized psychological distress* in an environment of chronic adversity. To a large extent, cash grants provided by ERKF aim to address the financial stressors reported by the entrepreneurs. To address the negative impact of other reported stressors related to safety, security, family-disruptions and others, a CBT-based psychological intervention seemed appropriate. Combining the CBT-based interven-

tion with the ERKF cash grant offer seemed to have the maximum potential to ameliorate symptoms of distress, and subsequently, lower business productivity and well-being.

Among the several available curricula that build on CBT, the Problem Management Plus (PM+) curricula was chosen and adapted for this intervention for three reasons.<sup>3</sup> First, its focus on managing stress, problem management, behavioral activation, and strengthening social support was found to be relevant to the issues faced by entrepreneurs in a FCV context. Second, the literature showed that it has already been tested in KPK for contextual validity, albeit for different clinical beneficiary groups, for example, pregnant mothers. This ensured that the language of the standard curriculum was appropriately tested for this local context, and that it could be further built on. Finally, compared to some other curricula, it could be delivered by trained, non-specialist providers (NSPs). This was a critical factor for implementation in conflict-affected areas that report a crippling shortage of technical staff. All these factors would allow for the intervention to be implemented in time, at a low-cost, and at the appropriate scale. The review of this curricula, as well as consultations with local psychologists in KPK, indicated that these strategies map well with the unmet needs described by the SME entrepreneurs.

The curriculum needed to be grounded in adaptive leadership and business principles. This would make it feasible to implement among the group of beneficiaries, specifically those high achieving SME entrepreneurs in fragile contexts suffering from an unrecognized burden of mental health problems. Using Pakistan's network of business leaders in Pakistan, the curriculum was adapted further. This improved the acceptability of the training program among SME entrepreneurs, and enabled them to lead change in times of crisis.

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<sup>3</sup> Permission obtained from WHO for use of the Urdu curriculum and its adaptation.

Rather than being a 'targeted' intervention for psychologically distressed individuals, the intervention takes a 'universal' approach for non-clinical populations. As such, it focuses on the development of stress management and problem-solving skills for all SME entrepreneurs. This was done for three reasons. First, unrecognized mental health issues, such as general anxiety disorder or depression can be addressed through universal approach. Second, group-based CBT delivered by non-specialist providers (NSPs) in community settings is more aligned with the universal approach. Third, cost and scalability concerns for a mental health intervention in a poor, fragile area exclude targeted treatments as the first point of intervention.

To develop the training curriculum for SME entrepreneurs, a 4-day intervention development workshop was organized. Participants included key stakeholders with both mental health and psychology backgrounds, trainers and Master Trainers, and SME and other. These stakeholders were invited to review findings from the Rapid Needs Assessment. The curriculum was then finalized in light of the training needs assessment by incorporating principles of PM+ and the adaptive leadership framework (Heifetz and others 2009).

### 3.3 Intervention Development (PM+E: Problem Management Plus for Entrepreneurs)

Once the core PM+ curriculum was identified, the framing of the curriculum was adapted to make it feasible to implement among high-achieving SME entrepreneurs who are suffering from an unrecognized burden of mental health problems and not clinically diagnosed yet. The revised curriculum was called PM+E (Problem Management Plus for Entrepreneurs)<sup>4</sup>. The curriculum was contextualized in leadership and adaptive skills and focused on self-improvement for well-being and business outcomes rather than use the traditional language found in the PM+ curriculum. Such framing helped to improve the acceptability of the training program among SME entrepreneurs and circumvent the cultural reservations around "mental health" (Saraf, Rahman, Hamdani, Jamison, and others, 2018). For example, distress-generating scenarios and anonymized real-life case studies - pertinent to the business community - were included in the curriculum with lessons on stress management, problem solving, behavioral activation, strengthening social networks, and self-care. In doing so, rather than targeting specific treatments for clinical individuals, the intervention focused on adaptive skills for at-risk non-clinical populations which increased its acceptability among SME entrepreneurs.

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<sup>4</sup> Henceforth, PM+ and PM+E will be used interchangeably throughout the report.

The intervention is designed to provide the entrepreneurs with a skillset that be applied to stressful situations in their everyday life and work. As such, it can help them to negotiate such challenges in an adaptive fashion. The core content of the 5-week training intervention is summarized below.

1. **Stress management:** The stress management strategy improves the management of stress related to business and personal problems and helps participants to remain calm during moments of stress. This includes somatic and deep breathing exercises.
2. **Problem solving:** This is a strategy to apply in situations where a participant is experiencing practical problems (for example, loss in business, conflict in the family, and so on). It gives participants real-time tools to deal with daily problems, such as breaking down a complex problem into what is within their control and what is outside, and strategies to respond to both categories.
3. **Behavioral activation:** This strategy is aimed at improving participants' levels of activity (relevant particularly where regular activity has been affected due to stressful conditions). In addition, it introduces participants to an "experimental mind-set" to encourage them to break out of the vicious cycle of the problems/adversity by trying out different ways of managing the challenges of everyday life.
4. **Strengthening support network:** Individuals with distress can isolate themselves from supportive people and organizations. The module focuses on strategies for strengthening a participant's social support network (for example, with trusted friends, family members, co-workers, or community organizations) that can promote well-being.
5. **Self-care:** This strategy is centered around the triangle of peace and calm that participants can use to take better care of themselves and improve their physical and mental health. PM+E retains the core structure of five sessions of the World Health Organization (WHO) PM+.

Framing of the curriculum in business terms was critical to increase its acceptance among high-achieving entrepreneurs with unrecognized mental health issues.

It is designed to be delivered in a group format by non-specialist providers in community settings. The training is brief, consisting of five days of face-to-face sessions followed by experience through a 'cascade' model of training and supervision. Details of the Training-of-Trainers (ToT) in PM+E are provided below.

### 3.4 Cascade Model of Training and Supervision

A cascade model of training and supervision was employed, which involved the training of coaches in PM+E by master trainers. This enabled them to deliver PM+E at the local business sites of SME entrepreneurs working in KPK and FATA (Murray and others 2014). After the training, coaches were supervised on a weekly basis by master trainers to manage any ambiguities and challenges in the delivery of PM+E. This cascade model of training and supervision was specifically tailored to meet the challenge of the lack of specialists in such settings, as well as restrictions on movement and security concerns of the delivery agents and participants.

This cascade model of training and supervision was specifically tailored to meet the challenge of the lack of specialists in such settings...

### 3.5 Training-of-Trainers (ToT)

The training of the trainers was conducted following the development of the training curriculum. The training of trainers entailed multiple training approaches, including lectures, active discussions, demonstration role-plays, trainee role-plays, and group and individual activities. The coaches were able to choose their preferred approaches. However, it was recommended that they regularly change the teaching approach to cater to all types of learners, using contextual and culturally appropriate examples to keep the training active and interesting. Also, the use of more active forms of teaching, such as role-plays, was recommended to better facilitate learning. To ease the delivery of training, the ToT manual, including a pictorial reminder about key activities, was developed and provided to coaches. Only competent trainers (scoring 2.5 on each domain) were selected for intervention delivery (see Appendix 6 for competence assessment methodology).

### 3.6 Trainer Profiles

Fourteen trainers (including 8 females and 4 males) attended the training. Potential trainers were selected based on their previous experience of working in the context of KPK/FATA, designing and delivering psychosocial interventions, as well as their similar cultural background. Participants included trainers with entrepreneurial background with experience in delivering leadership trainings, running businesses in KPK; psychologists with a background in developing and delivering psychosocial interventions; CBT experts; and business graduates. Table 4 summarizes the participants' characteristics.

**Table 4.** Trainer Characteristics

Characteristics	N (%)
<b>Gender</b>	
Male	6(43)
Female	8(57)
<b>Profession</b>	
Psychologists	8(57)
Entrepreneurs/Businesspeople	1(7)
Psychiatrist/CBT experts	1(7)
Professional trainers	2(14)
Business graduates	2(14)
<b>Previous experience in delivering training to entrepreneurs and delivering psychosocial interventions</b>	<b>10</b>

Note: N = 14

Source: World Bank Group (2018).

### Training methods

A training workshop followed the collaborative learning model, where all the trainers were given an opportunity to provide suggestions and share their previous experiences of working with similar populations. The following training methods were used in the training:

1. Group Discussions
2. Group activities
3. Demonstrations
4. Role plays
5. Didactic training methods/Classroom teaching

### Suggestions and recommendations for contextual adaptation and implementation of PM+E

During the group discussion at the end of each session, trainers provided helpful suggestions and feedback to make the training more relevant for entrepreneurs. Table 5 provides a summary of the suggestions.

**Table 5.** Summary of Key Contextual Considerations for Intervention Implementation

Workshop 1		
Section	Description	Additions
Name of the program was changed to make it more relevant to the target audience.	Using an analogy of Business to make the program more relatable for entrepreneurs.	<i>Mera Karobar, Mera Sukoon</i>
Use of Workshops as <i>baithak (sitting)</i>	Name the sessions/workshop as " <i>Baithak</i> " (sitting) to promote the idea of shared learning instead of a teaching.	
Participants' introduction in the first workshop was improvised.	Participants introduction was made critical, and the narrative was tailored around the SME entrepreneurs.	
To increase the buy-in of the participants, 'motivational interviewing' was considered critical.	This section was simplified to meet the needs of the target audience.	An activity/group discussion on "Expectations versus Fears" was added.
An emphasizes was given to 'group rules.'		It was suggested that 10 minutes in the beginning of each workshop should be allocated to make important calls/messages to minimize disturbances.
Workshop 1 was reorganized.	The Workshop was rearranged in the following manner. It started with the vicious cycle of adversity ( <i>masail ka ghan chakka</i> ), and then led to what is the PM+E for entrepreneurs' program to highlight the value of the program.	
Managing stress	The managing stress rationale was strengthened.	Examples were added to describe the effects of stress.
Managing stress exercise	Exercise was made simpler to make it relevant to the audience.	Examples were incorporated to explain deep breathing (breathing from the stomach).
Participants' tasks and activities	In order to help the participants to remember the content of the workshops, a suggestion for reminders was considered and added.	It was decided that a WhatsApp group will be formed to send motivational messages and reminders for different tasks and activities.
Workshop 2		
Managing problems	Activities were added to explain the steps of the problem management strategy.	Activities such as problem analysis and circle of influence activities were added.
Workshop 3		
The sequence of the workshop was rearranged.		Historical and religious examples were added.

**Table 5.** Summary of Key Contextual Considerations for Intervention Implementation, Cont.

Workshop 4		
Name of workshop	Participants suggested using a local term	The name of the workshop was changed.
Activity		Activities were added to highlight the importance of social support.
Workshop 5		
Staying well and looking forward	To highlight the importance of staying well, an activity and pictorial diagram were added.	A triangle of calmness ( <i>Sakoon ki tikon</i> ) was added, highlighting the importance of mental and physical well-being, the effective management of business problems

Source: World Bank Group, 2018.

### Selection of trainers for delivery of PM+E to SME entrepreneurs

During the fourth day of training, all trainers were given an opportunity to run a complete workshop to practice (through role play) their role as a trainer. Other peer trainers and master trainers acted as entrepreneurs. At the end of each workshop, peer and master trainers provided feedback. Master trainers also assessed the competency of trainers using the PM+E competency checklist. Trainers who met the competency criteria proceeded to deliver workshops to entrepreneurs. (See Appendix 6 for competency checklist).

### Workshop evaluation

At the end of the workshop, all the trainers completed a post-training evaluation form. The post-training evaluation form included questions about the content, length, quality of training and effectiveness of the trainers (please see Appendix 9 for the evaluation table).

Before implementation and evaluation of the intervention, business economics and behavioral psychology literature were reviewed to identify the relevant outcome measures that could map well with the intervention outcomes. Details of the outcome measures are described in the next section.



**Baghbanpura Bazar, Lahore, Pakistan.**  
Khadija Yousaf / Unsplash

# Sample and Experiment Design

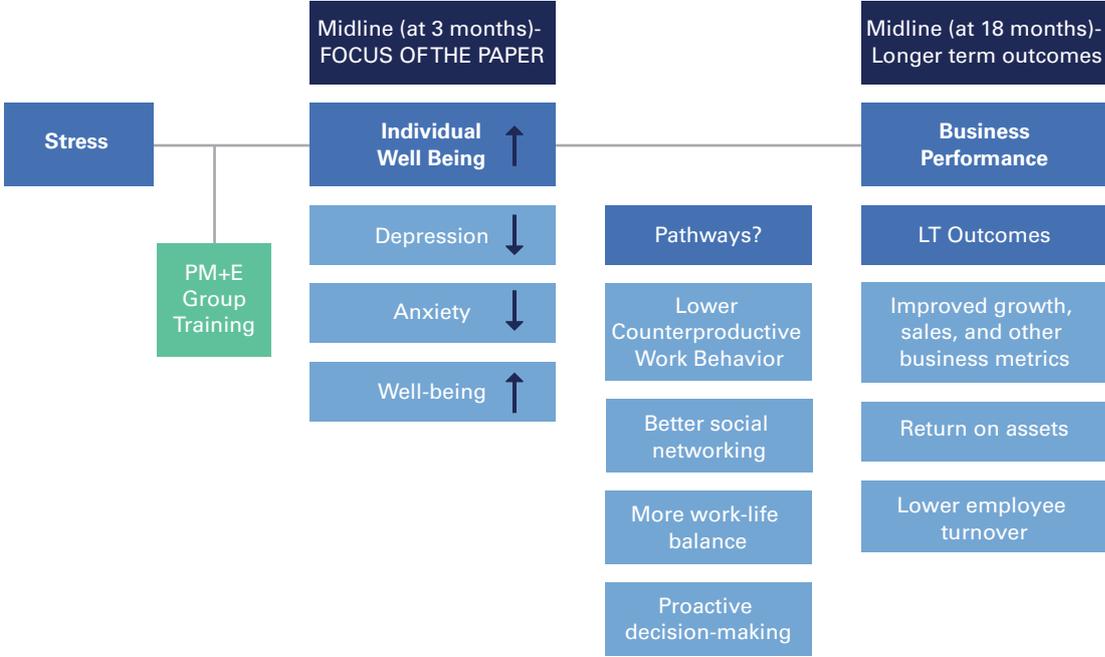
The Economic Revitalization of KP and FATA (ERKF) project was established in 2012 and supported by the World Bank. It provided a unique setting for research to compare individuals who received a cash grant to rebuild or establish businesses in the conflict-affected area with individuals who received both a grant and the 5 PM+E workshops. This allowed this study to test the hypothesis that financial assistance coupled with the training will be more effective than just the receiving cash grants in reducing depressive symptoms and anxiety, which are the most common manifestations of psychosocial distress. The details of the intervention implementation and evaluation with the 235 SME entrepreneurs are provided in this section.

## 4.1 Theory of Change

It is hypothesized that the PM+E intervention would improve mental health outcomes through reduced intensity and prevalence of depression and anxiety symptoms. Because mental health and well-being are intimately linked, one could expect to see concurrent improvements in well-being as mental health of entrepreneurs improves. Over time, this would lead to better business performance, such as increased sales, reduced employee turnover, and lower absenteeism rates within the firm. These tangible improvements at the firm level are likely to be mediated by a number of potential impact pathways (or pro-adaptive behaviors), which enable entrepreneurs to be more productive in the workplace. While the current literature does not provide concrete evidence on the types of pro-adaptive behaviors that facilitate improvements in business performance of SME entrepreneurs in FCV environments, it is hypothesized that these would include behaviors such as better social networking, lower counterproductive work behavior, better work-life balance that prevents burnout, and proactive decision-making (see Figure 3).

In this sense, the theory of change posits that improved individual mental health (as measured by a reduction in the occurrence of depression and anxiety symptoms) and, relatedly, improvements in well-being, will result in improved business performance via pro-adaptive behaviors.

Figure 3. Theory of Change



Since changes in firm performance take longer to manifest, the primary focus of this midline report is improvements in the intensity and prevalence of depression and anxiety symptoms. This was measured using the Patient Health Questionnaire- Anxiety and Depression Scale (PHQ-ADS), where a score of 10 or above indicates prevalence of anxiety and depression (ranging from mild to severe). A secondary, but closely related outcome variable, is well-being, measured by the WHO (Five) Well-being Index (WHO-5). In addition to these key variables, the study also measures additional variables at both baseline and the subsequent rounds to understand current some behaviors of entrepreneurs and, eventually, to shed light on the pathways through which improved mental health and well-being could lead to better business performance. At this juncture, business performance indicators are not reported. These variables will be collected during the endline survey. A description of these outcome indicators and mediating variables is given below.

## 4.2 Outcome Measures

### *Primary indicator*

**Depression and anxiety:** The primary outcomes are the prevalence and intensity of depression and anxiety symptoms, as measured using the Patient Health Questionnaire Anxiety-Depression Scale (PHQ-ADS), which combines the 9-item Patient Health Questionnaire (PHQ-9) and the 7-item Generalized Anxiety Disorder (GAD-7) scales (Kroenke and others 2016; Chilcot and others 2018). The PHQ-9 incorporates Diagnostic and Statistical Manual of Mental Disorders (DSM)-Version IV depression diagnostic criteria with other major depressive symptoms (Kroenke and others 2001). Participants rate their responses on a 4-point Likert scale ranging from 'not at all' to 'nearly every day' (0-3), with the score ranging from 0 to 27. It measures whether a person had difficulty in sleeping, felt hopeless/down, felt tired, had trouble falling asleep, had poor appetite, felt bad about him/herself, had difficulty concentrating, had been slow or restless, and had suicidal thoughts. The GAD-7 is based on the DSM IV diagnostic criteria for generalized anxiety disorder and has 7 items (Spitzer and others 2006). As with the PHQ-9, each item is scored on a 4-point Likert scale ranging from 'not at all' to 'nearly every day' (0-3), with the score ranging from 0 to 21. The GAD-7 measures whether a person has not been able to control worrying, has trouble relaxing, feels nervous and on the edge, is easily irritable, feels afraid that something terrible might happen, etc. The PHQ-ADS is score is calculated as the sum of the PHQ-9 and GAD-7, with the total score ranging from 0 to 48. Higher scores indicate higher intensity. The cutoff scores of 10, 20, and 30 indicate mild, moderate, and severe levels of depression and anxiety, respectively.

The Cronbach's Alpha scores of PHQ-ADS items show strong internal consistency, with scores above 0.8 across all three rounds (see Table 6).

**Table 6.** Reliability of PHQ-ADS score

	Cronbach's Alpha	Correlation
<b>Baseline</b>	0.8449	0.7402
<b>5 weeks</b>	0.8232	0.7009
<b>3 months</b>	0.8348	0.7184

### *Secondary indicator*

**Well-being:** This was measured using the WHO-5 Well-Being (WHO-5) index (Topp and others 2015). The WHO-5 is a short, generic global rating scale measuring subjective well-being. The respondent is asked to rate how well each of the 5 statements applies to him or her when considering the previous 14 days. Each of the 5 items is scored from 5 ('all of the time') to 0 ('none of the time'). The raw score ranges from 0 (an absence of well-being) to 25 (maximal well-being). Scores are then converted to a percentage scale from 0 (absent) to 100 (maximal). The WHO-5 measures whether a person reports feeling cheerful and in good spirits, calm and relaxed, active and vigorous, fresh and rested, and values their daily life.

### *Mediating variables*

These are variables that might facilitate improvements in business performance as a result of improved mental health and well-being on entrepreneurs. They include counter-productive work behaviors (CWB), social networking, perceived social support, individual entrepreneurial orientation (autonomy, risk taking, proactive decision making, information seeking, and so on), as well as overall work-life balance. A brief description of each is provided below:

- **Perceived social support** was measured using the Multi-dimensional Scale for Perceived Social Support (MSPSS). MSPSS measures perceived social support in three domains: family, friends and significant others (4 items each).
- **Psychological capital** was measured using the Psychological Capital Questionnaire (PCQ) 12 items version. The PCQ-12 measures psychological capital across four domains (hope-4 items, optimism-2 items, resilience-3 items and self-efficacy-3 items).
- **Individual Entrepreneurial Orientation (IEO)** was measured using an adapted Individual Entrepreneurial Orientation (IEO) Scale (Sang and Lim 2009). Data was collected regarding the autonomy, innovativeness, risk taking, competitive aggressiveness, information seeking (pro-active behavior) and impulsiveness to reflect the degree of change in behaviors over time.
- **Social networking** was measured using the composite scores of social networking with other business circles, as measured by the 4-item Social Networking Questionnaire. The questionnaire tapped into 4 areas of entrepreneurial networking: 1) sharing of business ideas, new techniques or suppliers; 2) formation of connections

with new potential customers, markets or other entrepreneurs; 3) gain of new customers, or financial support from other entrepreneurs; and 4) Sharing of tools, inputs, equipment or employees with other entrepreneurs.

- **Work-life balance (WLB)** was measured using the composite scores of work-life balance as measured by the 8-item Work-life Balance Questionnaire. WLB is described in the current study as the balance that an individual requires between the time allocated for work and other aspects of life.
- **Counterproductive work behavior (CWB)** was measured using the composite score of counterproductive work behaviors as measured by 4 counterproductive work behavior questions. CWB is non-productive behavior of entrepreneurs that goes against the legitimate interests of an organization. As such, it can harm organizations or people in organizations, including employees and clients, customers. Entrepreneurs were asked whether they thought they should have stayed home, had angry outbursts, complained about insignificant things at work, or thought of leaving the business in the previous three months.

### *Business performance*

Business performance indicators include improvement in core business metrics such as sales, employee turnover etc. Since improvements in mediating variables and business performance are likely to take longer to manifest, these outcome variables will only be measured at endline.

Baseline and midline surveys are in Appendix 4.

## 4.3. Sampling and Recruitment

### *Sample size calculations*

The unit of randomization in the study was individual entrepreneurs, with an equal number of entrepreneurs randomized into the intervention and control groups. The sample size was estimated using a recent study that measured changes in the occurrence of depressive symptoms as measured by the PHQ-9 (as a proxy for the PHQ-ADS, which has not been applied in similar contexts). The study utilized a sample of primary care (clinical) participants in the same area of Pakistan showed that a similar PM+ intervention had an effect size of 0.725 with a PHQ-9 total score as the outcome. An effect size which is

one-third of the precedent effect size was assumed because the current sample was not derived from a clinically-referred population. Factoring this in, a 20 percent reduction (roughly, one-third of 0.725) in the occurrence of psychological distress was considered meaningful. Power calculations suggested a minimum sample size of 84 participants per arm (power = 0.90;  $\alpha = .05$ , 2-sided). To account for a 25 percent attrition at the 3-month follow-up, a total of 235 participants were included and randomized into intervention (n=118) and control (n=117) arms (Saraf, Rahman, Hamdani, Jamison, and others, 2018).

### *Sample, recruitment, and data*

A sample of 235 SME entrepreneurs was drawn from among beneficiaries of the ERKF cash grants program. All participants received a cash grant of 2 million Pakistani Rupees (PKR) (approximately US\$14,300) from ERKF for rehabilitation of their businesses. Participants were invited to join the training program from different locations of KPK, and were between 21 to 80 years of age. Majority (95 percent) of the entrepreneurs in the sample were male, which is representative of the ERKF beneficiary pool.

Data was collected on psychological indicators of study participants across three rounds. All data was conducted via telephonic interviews. The baseline survey was conducted prior to the start of the intervention, the first midline survey immediately after delivery of the intervention (at the 5-week mark), and a follow-up midline survey 3 months after the intervention via telephonic interviews. An endline survey is scheduled to be completed 18 months after the intervention.

### *Randomization*

Effectiveness of the intervention was evaluated using a randomized controlled trial. Following the baseline survey, recruited participants were randomized into intervention (n=118) and control (n=117) groups by an independent researcher. The intervention group received cash grants plus the 5 weekly face-to-face group sessions of the PM+E training intervention, while the control group received cash grants only.

## 4.4 Empirical Strategy

The causal impact of the intervention on primary outcome indicators was estimated separately across the two time periods, that is, immediately after the intervention at 5 weeks, and then 3 months after the intervention. The 'Intent to Treat' (ITT)<sup>5</sup> effect on outcomes,  $Y$ , was estimated using an analysis of covariance (ANCOVA) specification to maximize power. Logistic regressions were used for binary outcomes. The estimation specification took the following form:

$$(i) Y_i^E = \alpha_i + \beta_1 Treatment_i + X_i\lambda + \delta Y_i^B + \epsilon_i,$$

where  $Treatment$  indicates random assignment to the treatment arm.  $Y_i^B$  is the baseline value of the outcome indicator  $Y$ . Baseline characteristics,  $X$ , are also controlled for, including age, ERKF funding round, and level of education.

To maximize the small sample size, impact was also estimated using the following pooled OLS specification using panel data:

$$(ii) Y_i^E = \alpha_i + \beta_1 Treatment_i * Round_i + X_i\lambda + \delta Y_i^B + \epsilon_i,$$

Where,  $Treatment * Round$  indicates random assignment to the treatment arm in Rounds 2 and 3. As before, baseline characteristics,  $X$ , include age, ERKF funding round, and level of education, and  $Y_i^B$  is the baseline value of the outcome indicator  $Y$ . Pooled regressions with standard errors clustered at the individual level are also estimated.

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<sup>5</sup> Intention to Treat (ITT) analysis includes every subject who is randomized according to the randomized treatment assignment. This means that once all the participants are randomized into intervention and control groups, all the participants are included in the analysis regardless of if they complete the end-point or not (Gupta 2011).



**Old Pakistanian Man in Traditional  
Pakol sitting on the Truck.**  
Dave Primov / Shutterstock

# Intervention Delivery

The PM+E intervention was delivered to the 118 SME entrepreneurs based in KPK over a period of 4 months. They constituted the treatment arm. The program was delivered in group format. The average group size was 10 participants per group. The 5 interactive workshops of approximately three hours' duration each were delivered by trainers in the local language.

To cater to the heterogeneity of the participants, the training was organized in the form of 'affinity groups' based on the gender and location of SME entrepreneurs. Since the geographical spread of SME entrepreneurs who benefited from the World Bank grant was wide, the training was organized at venues convenient to the participants. Some of the training sessions were organized at the business sites of the entrepreneurs, making it more convenient for them to attend the workshop. Separate training groups were organized for male (n=11) and female (n=1) SME entrepreneurs. To ensure consistency in the quality of intervention delivery, 4 of the best trainers were selected to deliver interventions in the 9 training centers spread across KPK. Each group was led by the trainer and a co-facilitator, who provided support with logistics, group management and group activities. Details of the intervention delivery are provided below.

## 5.1 Distribution of Intervention Participants

A total of 118 participants participated in the intervention in 12 groups at 9 locations, including: Peshawar (3 groups), Swat, Nowshera (2 groups), and Charsadda, Hungu, Bannu, Naraan, and Dir, (1 group each) (Image 4). A total of 14 trainers were trained in the ToT workshops.

## 5.2 Quality Assurance

- i. **Pre-session team meeting:** Before delivery of each intervention workshop, the intervention team met to plan the session and revise the core intervention concepts through role-plays.

**Image 4.** Geographical Distribution of Training Sites



Source: World Bank Group Cartography Unit (2019).

- ii. **Post-session team meeting:** At the end of each session, the intervention team had a debriefing meeting to discuss the strengths and challenges faced during the workshops, mitigation strategies, and participant feedback and suggestions to improve the delivery of the next intervention workshop.
- iii. **Weekly team meeting:** At the end of each week, the intervention team met to discuss queries related to the intervention, progress, challenges and mitigations, participant feedback and fidelity of the workshops.

- iv. **Fidelity checks:** Twenty-five percent (or 15 out of 60) of the intervention workshops were randomly selected to evaluate the quality of program delivery. To assess fidelity, an independent assessor (trained in PM+E for entrepreneurs) either observed the session live, or the session was audio/video-recorded where feasible. The assessor rated each session using a checklist designed to measure fidelity. On the fidelity checklist, each indicator was rated on scale of 1 to 4 (with 1 meaning a step was not taken, and 4 meaning excellent). A mean score of 2.5 indicated satisfactory completion of a workshop. All workshops rated for fidelity scored above the threshold of 2.5, indicating satisfactory delivery of intervention. The average fidelity score for the intervention delivery was 2.98. Each indicator was rated on a scale of 1-4, with poor/not done (1), adequately done (2), good (3) and excellent (4). The score of 2.98 indicates that all the intervention strategies (stress management, problem management, experimental mind set, strengthening social support and staying calm) were adequately delivered. See also Table 7.

**Table 7.** Fidelity Rating of Trainers

#	Session 1	Session 2	Session 3	Session 4	Session 5
1	3.3	2.5		3	2.8
2	3.6	2.5		3.3	2.6
3	3.2	2.7		3.2	2.8
4		3	3	3.2	
<b>Avg</b>	<b>3.4</b>	<b>2.7</b>	<b>3</b>	<b>3.2</b>	<b>2.7</b>

Source: World Bank Group (2018).

- v. **Workshop attendance:** Overall, attendance at the intervention workshops was satisfactory. The highest workshop attendance rate was observed in the town of Dir (91 percent), whereas participation in Peshawar was the lowest amongst all groups. The median number of workshops attended by participants was 3 (with a Mean of 2.6; and a Standard Deviation of 1.8). The workshop locations and attendance of intervention groups is provided in Table 8.

**Table 8.** Workshop Attendance Rates by Location

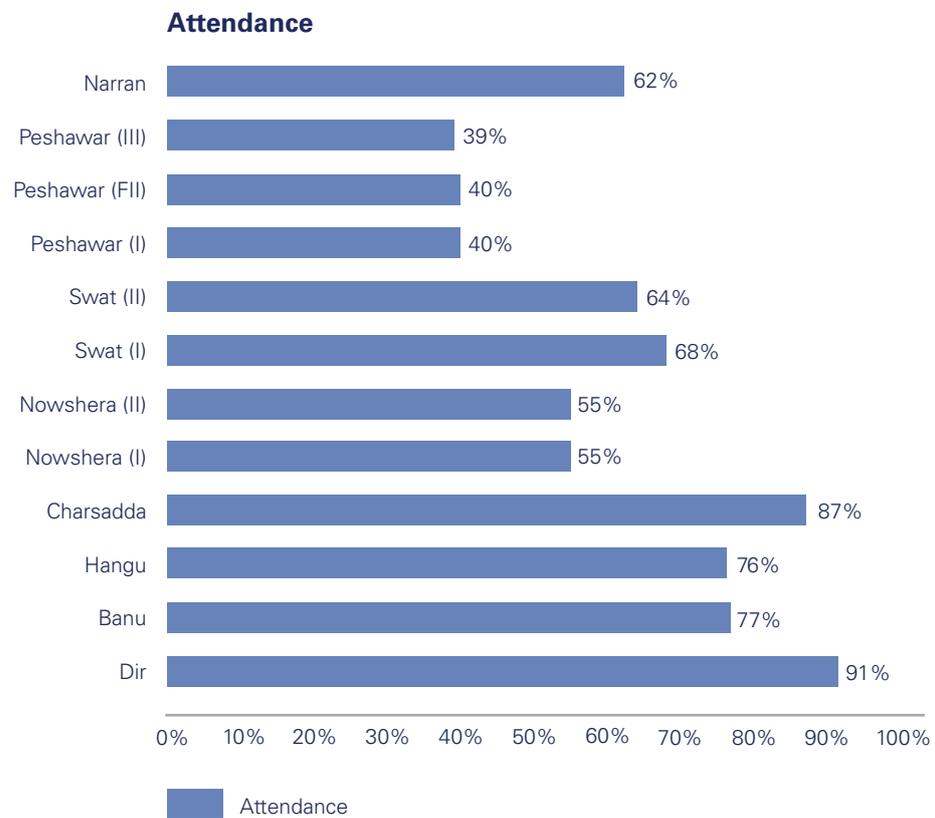
#	Groups	Total no. of participants	Session 1	Session 2	Session 3	Session 4	Session 5	Avg
1	Peshawar	7	43%	57%	29%	43%	29%	40%
2	Peshawar (females)	5	60%	40%	40%	40%	20%	40%
3	Peshawar Group 3	21	24%	29%	38%	52%	52%	39%
4	Swat	10	60%	60%	60%	100%	60%	68%
5	Swat (II)	5	70%	40%	70%	70%	70%	64%
6	Nowshera	16	60%	73%	40%	60%	33%	55%
7	Nowshera (II)	15	80%	40%	33%	60%	60%	55%
8	Charsadda	9	78%	89%	89%	89%	89%	87%
9	Hangu	5	100%	60%	60%	80%	80%	76%
10	Bannu	6	67%	83%	83%	83%	67%	77%
11	Dir	9	89%	89%	89%	89%	100%	91%
12	Narran	10	70%	60%	60%	60%	60%	62%
	<b>Avg</b>	<b>118</b>	<b>67%</b>	<b>60%</b>	<b>58%</b>	<b>69%</b>	<b>60%</b>	<b>63%</b>

Source: World Bank Group (2018).

### 5.3 Attendance Rates

Overall, workshop attendance exceeded the usual rates seen in FCV contexts<sup>6</sup>. However, attendance was lower than the assumed 75 percent. The workshop participants represented a very heterogeneous group of SME entrepreneurs with respect to key variables, such as age, socioeconomic status, educational background, business sectors, knowledge, skills and experiences, scale of operations, annual turnovers, number of employees, and geographical locations. This variability in participant characteristics in turn influenced their engagement and participation in workshops. For example, most of the participants from urban areas, especially from Peshawar/Nowshera, were high-end entrepreneurs, with high educational backgrounds and advanced business skills, successfully operating in urban communities for many years. Such participants were extremely busy, and found it difficult to commit to the workshops amid competing business demands.

<sup>6</sup> Typically, due to implementation challenges, attendance rates are rarely above 50 percent for interventions carried out in emergency areas.

**Figure 4.** Average Attendance Rates for Each Intervention Group

Source: World Bank Group (2018).

The participants who operated small businesses in the same vicinity and belonged to lower socioeconomic strata and geographical areas, which were directly impacted by humanitarian crises — such as Dir, Swat, Charsada, Hangu, and Banu — had the best participation rates in the program (Figure 4).

While attrition was higher than expected due to a religious festival and security episodes, there was no significant difference in the attrition rates between treatment and control group participants (see Appendix 7 for detailed analysis of attrition).

Regarding the number of sessions attended, 75 (63.5 percent) out of 118 participants attended 3 or more sessions, 19 (16 percent) attended 1 or 2 sessions, and 24 (20 percent) did not attend any workshop (Figure 5). Table 9 describes the reasons for not attending the workshops. The average duration of each workshop is provided in Table 10.

Figure 6 gives a detailed view of the flow of participants from recruitment to allocation to intervention followed by post-intervention follow up at the 5-weeks mark and subsequently at the 3 months mark.

**Figure 5.** Number of Sessions Attended by Intervention Participants



Source: World Bank Group (2018).

**Table 9.** Reasons for Not Attending Sessions

Reasons	N=43
Conflicting commitments*	25
Phone switched off/ did not pick up	5
Reasons not known	2
Declined consent	1
Business closed	1
Business transferred	1
Personal issues	4
Death in family	1
Health issues	2
Expected financial assistance	1

Source: World Bank Group (2018).

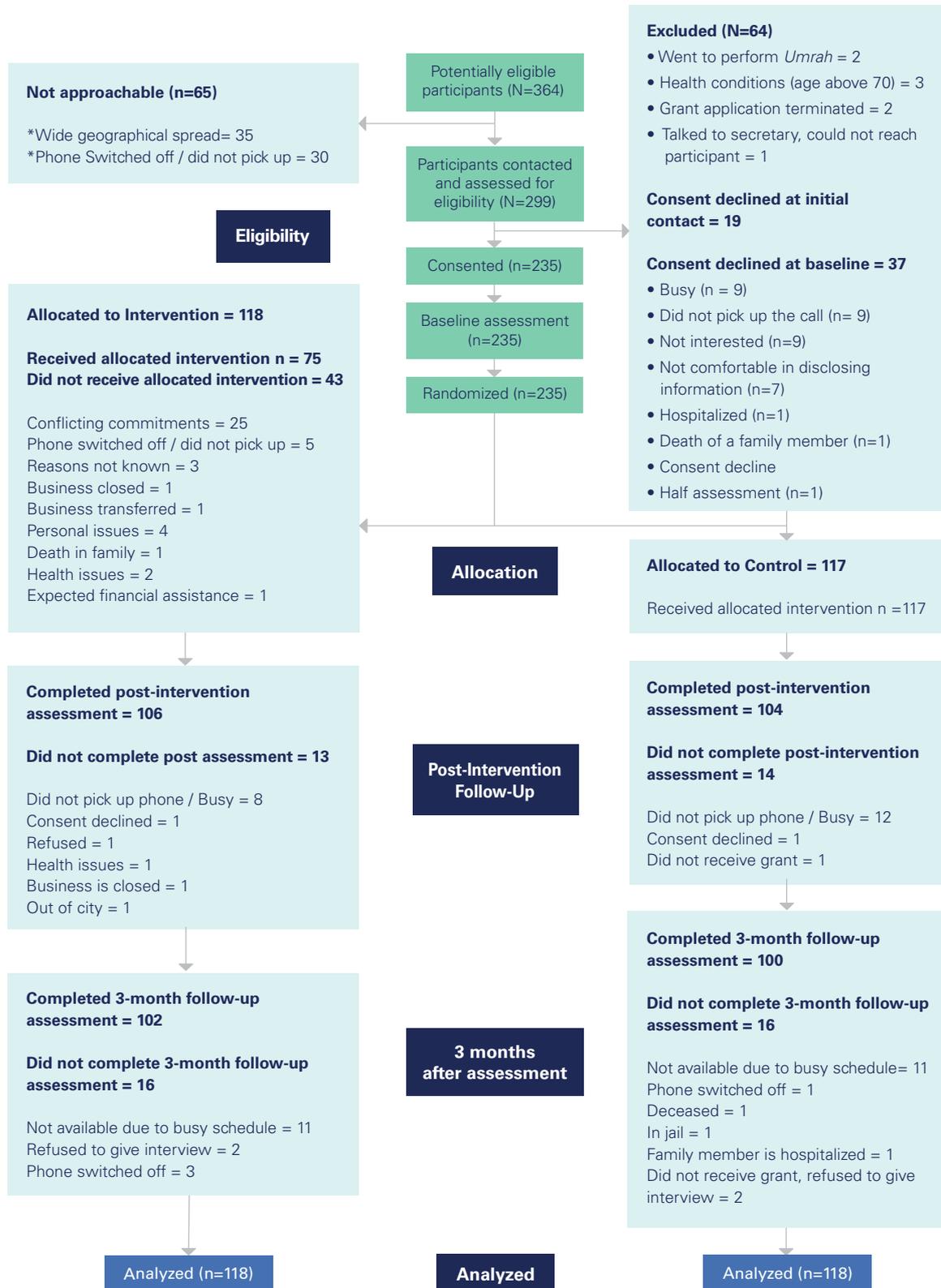
\*Conflicting commitments included important business activities, official and family meetings, political activities, and personal problems at home (for example, a family member is hospitalized, health issues, out of city or attending a family event).

**Table 10.** Duration of Sessions

#	Workshop	Average duration
1.	Workshop 1: Managing stress	2 Hours
2.	Workshop 2: Managing problems	2 Hours, 33 minutes
3.	Workshop 3: Get going, keep doing	2 Hours, 30 minutes
4.	Workshop 4: Strengthening social support	2 Hours, 15 minutes
5.	Workshop 5: Staying well and looking forward	2 Hours, 17 minutes

Source: World Bank Group (2018).

Figure 6. Flow of Study Participants



Source: World Bank Group (2018).



**Pakistan Monument -  
Islamabad, Pakistan.**

mtcurado / iStock

# Baseline Descriptive Statistics

## 6.1 Demographic, Business, and Psychological Characteristics

Majority of the participants (95 percent) were male and married (90 percent), with around 11.3 years of education on average. Average household income was PKR 101,291 (US\$ 725), and average number of dependents was 10. Less than half of the entrepreneurs (40 percent) received funding from ERKF during the first round of ERKF cash grants (1 year before the intervention), while the remaining received grants during the second round (6 months before the intervention). The largest proportion of firms owned by these entrepreneurs (36 percent) belonged to the service sector, followed by manufacturing, retailing, etc. Most firms (87 percent) were microenterprises (that is, having full-time employees of  $\leq 20$ ). Overall, the sample selected was representative of the larger population of ERKF grantees.

Tables 11-13 show the demographic, business, and psychological characteristics of participants across the treatment and control groups at baseline. Demographic characteristics of participants across the treatment and control groups were well balanced at baseline. Psychological indicators at baseline suggest that 1 in 4 entrepreneurs were experiencing mild to severe symptoms of depression or anxiety at baseline (i.e. PHQ-ADS score of 10 or higher). These were balanced at baseline. Participants in the treatment group appear to have marginally higher well-being scores at baseline, with the difference statistically significant at the 10% level.

See Appendix 5 for comparison of more descriptive statistics at baseline.

**Table 11.** Demographic, Business and Psychological Characteristics of Participants

Variable	Control		Treatment		t-test p-value
	N	Mean/SE	N	Mean/SE	
<b>Male</b>	117	95.7%	118	94.1%	0.566
		[0.019]		[0.022]	
<b>Age (years)</b>	116	42.9	118	42.2	0.604
		[0.987]		[0.992]	
<b>Married</b>	117	90.6%	118	88.1%	0.542
		[0.027]		[0.030]	
<b>Education (years)</b>	117	11.6	117	11.0	0.298
		[0.329]		[0.418]	
<b>No. of dependents</b>	109	10.5	113	9.5	0.372
		[0.642]		[0.882]	
<b>Household income (PKR)</b>	101	109,485	102	93,176	0.312
		[12,880]		[9712]	
<b>ERKF Round 1</b>	117	41%	118	38.1%	0.6522
		[0.046]		[0.045]	

Note: Standard errors in brackets. The values displayed for the t-tests are the p-values of difference across the groups. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels, respectively. Source: World Bank Group (2018)

**Table 12.** Business Characteristics of Participants

Variable	Categories	Control (%)	Intervention (%)	X <sup>2</sup>	p-value
<b>Business sectors</b>	Manufacturing	33.3%	31.4%	4.911	0.427
	Retailing	13.7%	17.0%		
	Services	12.9%	17.8%		
	Wholesale	5.1%	6.8%		
	Other	35.0%	27.1%		
<b>Size</b>	Micro (0-20)	86%	88%	1.131	0.770
	Small (21-50)	7.6%	7.7%		
	Medium (50+)	5%	4%		

Note: The value displayed for the t-tests are the p-values of difference across the groups. \*\*\*, \*\*, and \* indicate significance at the 1, 5, and 10 percent levels, respectively. Source: World Bank Group (2018)

**Table 13.** Psychological Characteristics of Participants

Variable	Control		Treatment		t-test p-value
	N	Mean/SE	N	Mean/SE	
<b>PHQ-ADS score</b>	117	7.215	118	6.678	0.639
		[0.816]		[0.769]	
<b>PHQ-ADS prevalence</b>	117	29.9%	118	22.0%	0.170
		[0.043]		[0.038]	
<b>Transformed WHO-5 score</b>	116	77.931	117	82.393	0.096*
		[1.984]		[1.786]	

Note: The value displayed for t-tests are the p-values of difference across the groups. Standard errors in brackets. \*\*\*, \*\*, and \* indicate significance at 1, 5, and 10 percent levels respectively.



**Smiling man in Pakistan.**  
Aatik Tasneem / Unsplash

# Results

This section summarizes the effect of the intervention on the primary (depression and anxiety symptoms) and secondary (well-being) outcomes at the midline time points. Business performance improvements, which are expected to take longer than 3 months to manifest, will be measured and analyzed following the endline survey. All results are analyzed by individual round (at the 5-week mark, and at the 3-month mark) as well as by pooling data across both rounds. Results are captured at the outcome level for PHQ-ADS scores and prevalence (using odd-ratio). The objective of the study was to evaluate the incremental effect of the PM+E psychosocial training *over and above* the effect of cash grants on reducing the prevalence and intensity of depressive and anxiety symptoms among SME entrepreneurs three months following the intervention. Incremental effects on well-being are also measured. Entrepreneurs in the treatment group received the intervention as well as cash grants, whereas those in the control group received only cash grants.

## 7.1 Depression and Anxiety (PHQ-ADS)

### 7.1.1. PHQ-ADS score (intensity)

The Patient Health Questionnaire- Anxiety and Depression Scale (PHQ-ADS)<sup>7</sup> is a measure where a score of 10 or above indicates prevalence and levels of anxiety and depression. Lower PHQ-ADS scores, therefore, indicate lower intensity of experiencing symptoms of anxiety and depression. Intent-to-treat (ITT) estimates show that entrepreneurs in the treatment arm have PHQ-ADS scores 0.74 lower than the scores of SME entrepreneurs in the control group at the 5-weeks (from a baseline average of 6.94). At the 3-month mark, the PHQ-ADS score for the treatment arm entrepreneurs goes down even more- by 1.36- relative to the control group. This suggests that intensity or level of depression and

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<sup>7</sup> PHQ-ADS is a measure where a score of 10 or above indicates prevalence and levels of anxiety and depression. It is a composite measure of PHQ-9 (depression) and GAD-7 (anxiety). The PHQ-9 measures whether a person had difficulty in sleeping, felt hopeless/down, felt tired, had trouble falling asleep, had poor appetite, felt bad about him/herself, had difficulty concentrating, had been slow or restless, and had suicidal thoughts. The GAD-7 measures whether a person felt nervous or anxious, could stop worrying, worried too much, had trouble relaxing, was very restless, became easily irritable, and felt afraid about bad things happening. Use of individual measures for depression and anxiety can be seen in earlier works using different empirical specification (Saraf, Rahman, Hamdani, Jamison, and others, 2018).

anxiety reduced for entrepreneurs in the treatment arm compared to the control arm, and the results improved over time. The 3-week results are statistically significant at the 10% level ( $p=0.087$ ). Table 14 reports the Intention to Treat (ITT) estimates of the effect of the intervention on PHQ-ADS scores.

This also holds true when results are pooled across both rounds. On average, those in the treatment group experience a 1.07 reduction in PHQ-ADS score relative to the control group. The effect is statistically significant at the 10% level ( $p=0.057$ ). When standard errors are clustered, results are not statistically significant.

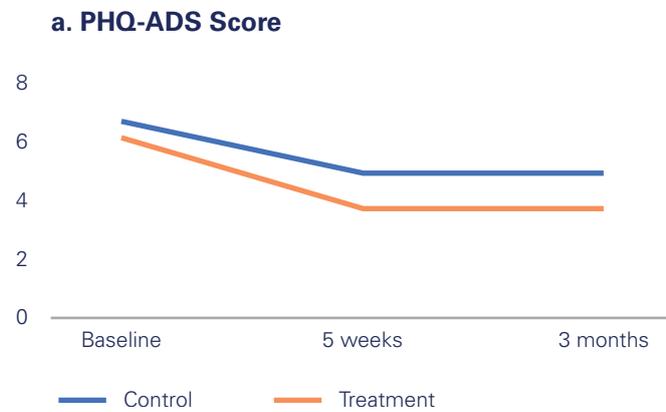
**Table 14.** Impact of Treatment on PHQ-ADS Score

	(1)	(2)	(3)	(4)
	ANCOVA		Pooled	
	5 weeks	3 months	Pooled	Clustered SEs
	PHQ-ADS score	PHQ-ADS score	PHQ-ADS score	PHQ-ADS score
<b>Treatment</b>	-0.736	-1.358*	-1.070*	-1.070
	(0.801)	(0.788)	(0.560)	(0.672)
<b>Baseline score</b>	0.434***	0.429***	0.432***	0.432***
	(0.0460)	(0.0457)	(0.0323)	(0.0591)
<b>Round- ERKF</b>	1.249	-0.714	0.309	0.309
	(0.826)	(0.830)	(0.583)	(0.635)
<b>Age</b>	-0.00995	-0.0197	-0.0153	-0.0153
	(0.0383)	(0.0374)	(0.0267)	(0.0308)
<b>Education</b>	0.0326	0.00303	0.0164	0.0164
	(0.0991)	(0.0984)	(0.0696)	(0.0858)
<b>Constant</b>	1.604	3.149	2.430	2.430
	(2.178)	(2.164)	(1.530)	(1.967)
<b>Observations</b>	206	200	406	406

Note: Standard errors in parenthesis.

Column 4 shows results of pooled regression with standard errors clustered at the individual level

\*\*\*  $p<0.01$ , \*\*  $p<0.05$ , \*  $p<0.1$

**Figure 7.** Changes in Scores of Depression and Anxiety Symptoms

### 7.1.2 PHQ-ADS prevalence (odds ratio)

Prevalence of depression and anxiety symptoms in the study population is measured by the proportion of respondents with PHQ-ADS scores greater than or equal to 10, which is indicative of whether someone is experiencing these symptoms for more than 3 days during the previous two weeks. The prevalence of depression and anxiety symptoms was balanced between the treatment and control groups at baseline. Prevalence is captured as odds-ratio which indicates the odds of an outcome occurring given a particular exposure (in this case, conditional on being in the treatment group), compared to the odds of the outcome occurring in the absence of that exposure (in this case, being in the control group).

Improvements are reflected in the lowered odds ratio of prevalence of depression and anxiety symptoms. Intention to Treat (ITT) estimates (see Table 15 below) show dramatically lower odds of individuals in the treatment group experiencing depressive symptoms relative to those in the control group at both the 5-week and 3-month post-intervention marks<sup>8</sup>. Compared to SME entrepreneurs in the control group, those in the treatment group have 0.65 times the odds of experiencing depression and anxiety symptoms at 5 weeks, immediately after the intervention (Column 1). The effect is larger at 3 months post intervention,

<sup>8</sup> The results show the odds of an outcome occurring given a particular exposure (in this case, conditional on being in the treatment group), compared to the odds of the outcome occurring in the absence of that exposure (in this case, being in the control group). An odds ratio of 1 means that a person will have the same odds of experiencing depression and anxiety symptoms irrespective of whether he/she belongs to the treatment or control group. By contrast, an odds ratio of  $x/y$  means that the odds of a person in the treatment group experiencing such symptoms is  $x/y$  times that of the odds of a person experiencing such symptoms in the control group. Odds-ratio for individual metric of PHQ-9 (instead of PHQ-ADS) can be seen with a different empirical specification in earlier works (Saraf, Rahman, Hamdani, Jamison, and others, 2018).

**Table 15.** Impact of Treatment on Prevalence

	(1)	(2)	(3)	(4)
	ANCOVA		Pooled	
	5 weeks	3 months	Pooled	Clustered SEs
	PHQ-ADS prev.	PHQ-ADS prev.	PHQ-ADS prev.	PHQ-ADS prev.
<b>Treatment</b>	0.649	0.459	0.563*	0.563*
	(0.252)	(0.219)	(0.168)	(0.195)
<b>Baseline prev.</b>	4.684***	11.04***	6.503***	6.503***
	(1.848)	(5.301)	(1.931)	(2.215)
<b>Round- ERKF</b>	1.484	0.684	1.120	1.120
	(0.584)	(0.345)	(0.341)	(0.385)
<b>Age</b>	1.004	1.001	1.002	1.002
	(0.0186)	(0.0227)	(0.0143)	(0.0162)
<b>Education</b>	0.972	1.009	0.983	0.983
	(0.0459)	(0.0610)	(0.0364)	(0.0413)
<b>Constant</b>	0.155	0.0759*	0.127***	0.127***
	(0.158)	(0.0986)	(0.101)	(0.120)
<b>Observations</b>	206	200	406	406

Note: Standard errors in parenthesis.

Column 4 shows results of pooled regression with standard errors clustered at the individual level

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

**Figure 8.** Changes in Prevalence of Depression and Anxiety Symptoms



The results suggest that entrepreneurs in the treatment group are substantially less likely (half as likely) to experience depression and anxiety symptoms compared to those in the control group, and the effects improve over time.

with those in the treatment group having 0.46 times the odds of experiencing depression and anxiety symptoms compared to those in the control group (Column 2).

This suggests that entrepreneurs in the treatment group are substantially less likely (half as likely) to experience depression and anxiety symptoms compared to those in the control group, and the effects improve over time. In absolute levels of prevalence, this means that one-third more entrepreneurs in the treatment group experienced improved quality of life as a result of their improved mental health status compared to entrepreneurs in the control group. Even though the effects are substantial in size, they are not statistically significant in both the 5-week and the 3-month mark, likely due to the small sample size and higher than expected levels of attrition.

The results are confirmed by using the alternative approach of regression using pooled data across both follow-up rounds<sup>9</sup> (Columns 3 and 4). Consistent with the earlier impact estimates, SME entrepreneurs in the treatment group have 0.56 times the odds of experiencing depression and anxiety symptoms compared to those in the control group. The effect is statistically significant at the 10% level ( $p=0.054$ ) and remains statistically significant at the 10% level ( $p=0.097$ ) when standard errors are clustered at the individual level.

Figure 8 shows prevalence trends across the three rounds for all participants.

Looking at the movement of individuals across the four categories of severity measured by the PHQ-ADS (none, mild, moderate, and severe) provides a clearer picture of how these changes affect individual entrepreneurs at various points along the depression-anxiety spectrum. Table 16 (Columns 1-2) shows the changes across the severity categories between the treatment and the control group participants. This analysis suggests that *the treatment was most effective at improving outcomes for those at the margins or onset of depression and anxiety (that is, those in the "mild" category), as well as those experiencing moderate levels of depression and anxiety, the latter especially at the 5-week mark.* This becomes clearer when data is restricted to only those entrepreneurs who were interviewed at all 3 rounds (columns 3 and 4). The proportion of treatment group entrepreneurs

<sup>9</sup> The pooled sample comprises of all respondents from both follow-up panels (i.e. 5 weeks and 3 months). Table 15, Column 3 shows the result of the pooled logistic regression, and Column 4 shows the same result after clustering standard errors at the individual level.

**Table 16.** Changes in Depression and Anxiety Category Across 3 Rounds

Time-points	Categories	All		Restricted Sample*	
		Treatment Group (1)	Control Group (2)	Treatment Group (3)	Control Group (4)
<b>Baseline</b>		N, f (%)	N, f (%)	N, f (%)	N, f (%)
	None (0-9)	92(78.0)	82(70.1)	76(77.6)	66(72.5)
	Mild (10-19)	15(12.7)	24(20.5)	12(12.2)	15(16.5)
	Moderate (20-29)	8(6.6)	8(6.8)	7(7.1)	7(7.7)
	Severe (30-48)	3(2.5)	3(2.6)	3(3.1)	3(3.3)
<b>5 weeks</b>					
	None (0-4)	90 (85.7)	80(77.7)	86(87.8)	72(79.1)
	Mild (5-9)	12(11.4)	16(15.5)	10(10.2)	12(13.2)
	Moderate (10-14)	1(1.0)	7(6.8)	0 (0.0)	7(7.7)
	Severe (15-19)	2(1.9)	0(0)	2(2.0)	0(0.0)
<b>3 months</b>					
	None (0-4)	92(90.2)	81(81.0)	88(89.8)	73(80.2)
	Mild (5-9)	5(4.9)	13(13.0)	5(5.1)	12(13.2)
	Moderate (10-14)	3(2.9)	4(4.0)	3(3.1)	4(4.4)
	Severe (15-19)	2(2.0)	2(2.0)	2(2.0)	2(2.2)

Note: \* A total of 189 participants (98 in the treatment group and 91 in the control group were interviewed in all 3 rounds).

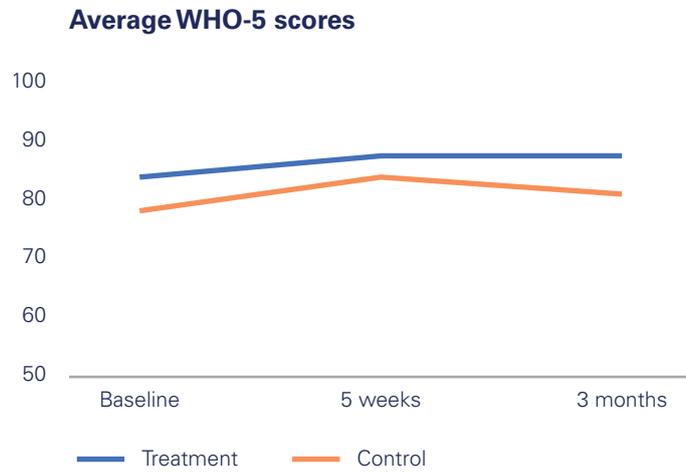
in the mild and moderate categories go from 19.3% at baseline to 8.2% at the 3 months mark, which is a substantial reduction. While reduction is also observed in the control group (from 24.2% to 17.6%), the percentage reduction is much smaller.

This intra-category analysis seems to suggest that early psychosocial intervention for entrepreneurs in FCV contexts might be most effective in cases of mild to moderate depression that may risk becoming chronic and severe distress in future. Such early diagnostic and preventative approach could result in significant healthcare cost savings, as well as improvements in business productivity.

## 7.2 Well-Being

At the baseline, personal well-being was high (with average WHO-5 score of 80). However, despite this strong starting point, there were substantial improvements observed in well-being of SME entrepreneurs in the treatment group, especially 3 months after the

**Figure 9.** Change in Well-Being Scores



**Table 17.** Effect of Treatment on Well-Being

	(1)	(2)	(3)	(4)
	ANCOVA		Pooled	
	5 weeks	3 months	Pooled	Clustered SEs
	WHO-5 score	WHO-5 score	WHO-5 score	WHO-5 score
<b>Treatment</b>	0.751 (2.147)	4.732* (2.637)	2.710 (1.698)	2.710 (1.958)
<b>Baseline score</b>	0.442*** (0.056)	0.338*** (0.067)	0.392*** (0.0436)	0.392*** (0.0580)
<b>Round- ERKF</b>	0.105 (2.197)	3.669 (2.742)	1.924 (1.750)	1.924 (1.845)
<b>Age</b>	0.134 (0.103)	-0.135 (0.125)	-0.00123 (0.0810)	-0.00123 (0.0926)
<b>Education</b>	-0.735*** (0.265)	-0.207 (0.327)	-0.480** (0.210)	-0.480** (0.212)
<b>Constant</b>	50.73*** (6.711)	60.76*** (8.144)	55.73*** (5.280)	55.73*** (6.675)
<b>Observations</b>	205	199	404	404

Note: Standard errors in parenthesis.

Column 4 shows results of pooled regression with standard errors clustered at the individual level

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

intervention. Figure 9 illustrates the improved trend in well-being observed among the treatment group participants relative to the control group participants. At the 5-week mark, a positive trend is observed in the WHO-5 scores across both groups. At 3 months, the positive and increasing trend in personal well-being is maintained in the treatment group, whereas the control group experiences a decline. Entrepreneurs in the treatment group, therefore, experience improved well-being (that is, they are in good spirits, relaxed, engaged, and so on more often) as a result of going through the training program- even months after the secession of the intervention.

**At the 3-month mark, WHO-5 score among entrepreneurs in the treatment group is 4.73 higher on average compared to the counterparts in the control group.**

Table 17 shows the ITT estimates of treatment effect on the WHO-5 score at 5 weeks and 3 months post intervention, as well as results of analysis using pooled data. At the 3-month mark, WHO-5 score among entrepreneurs in the treatment group is 4.73 higher on average compared to their counterparts in the control group (Column 2). The difference between the scores is statistically significant at the 10 percent level ( $p=0.074$ ). Using pooled regressions, WHO-5 scores of entrepreneurs in the treatment group is 2.7 higher on average, though the effect is not statistically significant.

## 7.3 Discussion

Our results suggest that although cash transfers (with an average size of US\$14,000) may improve mental health by perhaps addressing financial constraints and related stress, combining it with a low-cost PM+E intervention (at a cost of US\$300/trainee) can further improve mental health (both prevalence and intensity of depression and anxiety) as well as well-being among SME entrepreneurs in FCV contexts<sup>10</sup>. The odds of experiencing depression and anxiety for entrepreneurs in the treatment arm is substantially lower (0.46x) compared to the control group.

Across all outcome indicators, impact is larger 3 months after the intervention, compared to immediately after at 5 weeks. This suggests that benefits of a CBT-based training curriculum, which focuses on changing mindsets (that is, developing positive outlook and

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<sup>10</sup> In the absence of endline data, which will measure business performance, it is not possible to show a full cost-benefit analysis of the intervention. The team plans to include a detailed discussion of the cost benefit analysis once more reliable data on profits and business performance (from the endline survey) is available.

resilience, and improving decision-making abilities), may be incremental over time. It also implies that the impact of psychosocial interventions, in general, on mental health and well-being may take a while to manifest, and impact evaluations need to factor that in.

Since this is one of the first studies looking at the impact of such an intervention on a non-clinical population, a proper benchmark for comparison does not yet exist. For instance, the study was not able to answer how a reduced odds ratio of 0.46 of encountering depression and anxiety compares to other interventions for entrepreneurs. However, consultations with clinical psychologists in Pakistan and at the University of Liverpool who have conducted PM+ Randomized Control Trials (RCTs) suggest that a reduction of this magnitude in the prevalence and intensity of depression and anxiety symptoms is meaningful for a non-clinical population such as entrepreneurs. That the PM+E curriculum was able to move people across categories of depression and anxiety is also a test of clinical meaningfulness.

Given the challenging implementation environment, attrition levels were higher than anticipated which reduced the power to detect statistically significant impact with greater confidence. At the same time, with the existing sample size, the results show (clinically) meaningful and directionally expected results. Three months after the intervention, based on analysis of pooled data across two follow-up rounds (at five weeks and three months post intervention), entrepreneurs in the treatment group experienced statistically significant reduction in the intensity and prevalence of depression and anxiety symptoms (measured by the Patient Health Questionnaire Anxiety and Depression Scale) and higher levels of well-being (measured by the WHO-5 Well-Being Index) compared with the control group. This implies that with a larger sample in future studies, these effects could be determined with greater confidence.



**Panning of tuk tuk.**  
Omer Serkan Bakir / iStock.

# Process Evaluation

The purpose of the process evaluation is to improve the program design and delivery during a future scale-up. Given the importance of complementing the quantitative analysis with qualitative feedback from the participants to help improve future implementation, a process evaluation was conducted. The goal was to explore the perceived impacts of the program on entrepreneurs, as well as the acceptability, feasibility, barriers and facilitators (that is, the reasons for engagement or disengagement) of the program according to participants.

## 8.1 Methodology

Feedback regarding program implementation was collected using end of training and workshop evaluation forms, which were completed by all participants (N=75). Ten SME entrepreneurs were interviewed (those completed the training n= 6, and those did not complete training n= 4) to understand their perspective about program implementation. A team of one interviewer and a note taker conducted face-to-face semi-structured interviews. Interviews were also audio recorded and transcribed. These interviews were conducted at a place and time convenient to SME entrepreneurs. The interviews began by welcoming the participants and providing an orientation about the purpose of the interview (see Appendix 8 for full interview guide).

**Image 5.** Strengthening Social Network Activity



*World Bank Group, 2018.*

## 8.2 Beneficiary Feedback During Program Delivery

### End of training feedback

Most of the participants reporting feeling satisfied with different aspects of program delivery. Details of training and workshop evaluations are provided in table 18.

#### i. Evaluation of workshop

**Table 18.** Post-Session Participant Feedback: Frequency and Responses

Variables	Responses	Workshop 1 (N=71)	Workshop 2 (N=56)	Workshop 3 (N=52)	Workshop 4 (N=57)	Workshop 5 (N=31)
<b>Difficulty level of the workshop</b>	The difficulty level of the workshop was about right.					
	Difficult	3 (3.9)	-	3 (5.2)	-	-
	Average	3 (3.9)	2(3.3)	1 (1.7)	3 (4.9)	-
	Easy	26 (32.4)	27 (45.0)	25 (43.1)	25 (41.0)	16 (45)
	Very Easy	43 (56.6)	31 (51.7)	28 (48.3)	33 (54.1)	19 (54.3)
<b>Relevance</b>	How relevant was the training information provided to you?					
	Not at all	-	1 (1.7)	2 (3.4)	-	-
	A little bit	3 3.9	1 (1.7)	0(0)	-	1 (2.9)
	Average	14 (18.4)	6 (10.0)	6 (10.3)	4 (6.6)	2 (5.7)
	A lot	24 (31.6)	24 (40.)	18 (31.0)	23 (37.7)	13 (37.1)
Very much	35 (46.1)	28 (46.7)	31 (53.4)	34 (55.7)	19 (54.3)	
<b>Interest</b>	How interesting was the workshop for you?					
	A little bit	-	-	2 (3.4)	-	-
	Average	5 (6.6)	4 (6.7)	1 (1.7)	2 (3.3)	2 (5.7)
	A lot	20 (26.3)	12 (20)	14 (24.1)	17 (27.9)	10 (28.6)
Very much	51 (67.1)	44 (73.3)	40 (69.0)	42 (68.9)	23 (65.7)	
<b>Applicability of PM+E strategies</b>	How much of the PM+E strategies are practical in nature?					
	25 percent	2 (2.6)	1 (1.7)	2 (3.4)	-	-
	50 percent	35 (46.1)	28 (46.7)	23 (39.7)	19 (31.1)	16 (45.7)
	75 percent	29 (38.2)	24 (40.0)	20 (34.5)	30 (49.2)	12 (34.34)
100 percent	7 (9.2)	6 (10.0)	10 (17.2)	9 (14.8)	4 (11.4)	

**Table 18.** Post-Session Participant Feedback: Frequency and Responses, Cont.

Variables	Responses	Workshop 1 (N=71)	Workshop 2 (N=56)	Workshop 3 (N=52)	Workshop 4 (N=57)	Workshop 5 (N=31)
<b>Ease of applicability of strategies</b>	How easy it is to incorporate these strategies in your everyday life?					
	Very Difficult	1 (1.3)	-	-	-	-
	Difficult	2 (2.6)	1 (1.7)	-	-	1 (2.9)
	Average	5 (6.6)	10 (16.7)	6 (10.3)	5 (8.2)	3 (8.6)
	Easy	24 (31.6)	13 (21.7)	21 (34.4)	21 (34.4)	9 (25.7)
	Very easy	38 (50.0)	36 (60.0)	32(52.5)	32 (52.5)	19 (54.3)
<b>Duration of workshop</b>	Was the duration of the workshop adequate/appropriate?					
	A little appropriate	-	-	-	3 (4.9)	-
	Average	6 (7.9)	1 (1.7)	1 (1.7)	1 (1.6)	1(2.9)
	Appropriate	31 (40.8.)	29 (48.3)	32 (55.2)	30 (49.2.)	16 (45.7)
	Very appropriate	36 (47.4)	30(50.0)	22 (37.9)	24 (39.3)	15 (42.9)
<b>Coach's command over content</b>	Did the coach have a full command over the content of the training?					
	A little	-	-	-	-	1 (2.9)
	Average	5 (6.6)	2 (3.3)	1 (1.7)	1 (1.6)	1 (2.9)
	To some extent	22(28.9)	13 (21.7)	16 (27.6)	18 (29.5)	6 (17.1)
	Complete command	46 (60.5)	43(71.7)	37 (63.8)	39 (63.9)	24 (68.6)
<b>Participation in training activities</b>	How was the overall participation of the workshop attendees?					
	No participation	1(1.3)	0(0)	-	-	-
	Very little participation	-	1 (1.7)	-	-	-
	Adequate participation	3 (3.9.)	7(11.7)	9 (15.9)	4 (6.6)	3 (8.6)
	Highly participatory	26 (34.2)	17 (28.3)	22 (38.9)	22 (36.1)	10 (28.6)
	Fully engaged	43 (56.6)	34 (56.7)	24 (41.4)	31 (50.8)	19 (54.3)
<b>Clarity of instructions</b>	How clear were the instructions for the activities?					
	Average	5 (6.6)	-	4 (6.9)	1 (1.6)	2 (5.7)
	Clear to a greater extent	25 (32.9)	25 (41.7)	22 (37.9)	27 (44.3)	15 (42.9)
	Completely clear	44(57.9)	34 (56.7)	30 (51.7)	32 (52.5)	18 (51.4)
<b>Relevance of group activities to PM+E strategies</b>	How relevant were these activities to the core concepts of the PM+E strategies?					
	Not relevant	-	-	2 (3.4)	-	-
	Somewhat relevant	10 (13.2)	1 (1.7)	-	2 (3.3)	3 (8.6)
	Very much	22 (28.9)	24 (40.0)	20 (34.5)	26 (42.6)	10 (28.6)
	Completely relevant	43 (56.6)	34 (56.7)	34 (58.6)	31 (50.8.)	22 (62.9)

**Table 18.** Post-Session Participant Feedback: Frequency and Responses, Cont.

Variables	Responses	Workshop 1 (N=71)	Workshop 2 (N=56)	Workshop 3 (N=52)	Workshop 4 (N=57)	Workshop 5 (N=31)
<b>Following group rules</b>	How much were the group rules of the workshop followed?					
	To some extent	2 (2.6)	0(0)	-	-	-
	Average	4 (5.3)	2 (3.3)	4 (6.9)	3 (4.9)	1 (2.9)
	To a greater extent	28 (36.8)	28 (46.7)	22 (37.9)	23 (37.7)	14 (42.9)
	Completely followed	41(53.9)	29 (48.3)	28 (48.3)	33 (54.1)	19 (54.3)
<b>Venue</b>	Was the venue appropriate for the workshop?					
	Inappropriate	-	-	-	1 (1.6)	-
	Average	1 (1.3)	1 (1.7)	3 (5.2)	4(6.6)	1 (2.9)
	Good	26 (34.2)	14 (23.3)	17 (29.3)	17 (27.9)	15 (42.9)
	Very good	48 (63.2)	44 (73.3)	33 (56.9)	34 (55.7)	19 (54.3)

Source: World Bank Group (2018)

### ii. Summary of evaluation

Overall, about 75 percent of the participants felt that the training was relevant and applicable to their real-life problems (Saraf, Rahman, Hamdani, Jamison, and others, 2018). Most of the participants reported that the training venues were appropriate (specifically, 44 percent said very appropriate, 24 percent said good, and 5 percent said appropriate). On the question of “How practical are the strategies taught in the training?,” seventy-one percent of the participants thought that the training is practical in nature and can be applied to real-life settings. Sixty-eight percent of the participants thought that the group size of the training workshops was adequate (36 percent = adequate, and 32 percent = very adequate) whereas 5 percent of the participants did not think that the group size was adequate for the training. Regarding the duration of training, 48 percent of the participants said that it was “Very Appropriate”; 45 percent considered it “Appropriate”; 6 percent considered it “Average”; and only 1 percent found it to be “Inappropriate.” Regarding the applicability of strategies to real life, 51 percent of the participants reported “Very Good” and 46 percent “Good.” As for the usefulness and understanding of training, 50 percent considered it “Very Helpful” while 45 percent considered it “Helpful”.

### iii. Qualitative questions at the end of training evaluation

At the end of training, participant feedback was collected using structured evaluation forms. Three open-ended questions were asked:

1. *What was the most interesting aspect/thing of the training?*
2. *What do you think about the coach?*
3. *What could we do to improve this training further?*

Overall, participants reported satisfaction with the various aspects of intervention delivery.

**Table 19.** Response Rate for Qualitative Questions Post-Intervention

Question No.	No. of Respondents N=73 f(%)
11	62 (85)
12	54 (74)

### 8.3 Beneficiary Feedback After Program Delivery

The analysis of the qualitative data was conducted using a thematic analytical approach. The audio recorded interview data was transcribed into the Urdu language. To gain familiarity with the raw data, the transcribed data was read and reread by the study team. During the process of familiarization, the emerging categories were highlighted. These emerging categories were compared and contrasted with one other to identify any patterns in the raw data.

A thematic table was then developed to organize the emerging categories after the thematic analysis (see Table 21 and Appendix 9 for more). Each interview was analyzed by two researchers and then reviewed by the team lead. Any discrepancies between analyses were discussed among the analysis team.

#### *Demographic characteristics of participants interviewed*

From a total of 12 participants, 10 agreed to be interviewed (for a response rate of 80 per cent). There was diversity in the participants' education ranging from no schooling to post graduate education. Variability in the nature of the businesses of entrepreneurs was also observed. Four of 10 participants were from the manufacturing sector, 3 were from the retail sector, 1 was from the service sector, 1 was from wholesale trade, and 3 were from "other category". Basic demographics of the participants are provided in Table 20.

**Table 20.** Demographic Characteristics of Study Participants (n=10)

Variable	Categories	f (%)
<b>Age in Years (Range)</b>	31 – 47	7(70)
	41 – 57	3(30)
<b>Education</b>	No Schooling	1(10)
	1-10 grades	6(60)
	11-16 grades	3(30)
<b>Years of Experience</b>	Less than and equal to 10 years	2 (20)
	More than 10 years	8(80)
<b>Nature of Business</b>	Service Sector	1 (10)
	Manufacturing Sector	4(40)
	Retail Sector	3(30)
	Wholesale Sector	1(10)
	Others	3 (30)

Source: World Bank Group (2018)

## Beneficiary feedback findings

### i. Overall training experience

Participants reported that the overall training was helpful for them in many ways. Specifically, they are now able to manage their problems better, both in business and in their personal lives. The training also provided them with an opportunity to connect and interact with other entrepreneurs in the treatment group and learn from their experiences in a supportive environment (Saraf, Rahman, Hamdani, Jamison, and others, 2018).

They liked the novelty of the training, as one of the participants said:

*“It was a good experience; otherwise it is too difficult to sit together at one place. But you gave us the platform to know each other....it was just like a home. We were able to share our problems with other[s].” (IDI-ND-09)*

The overall training proved to be a learning experience for them as well. It helped them to learn skills to take their businesses in new directions. As one participant stated:

*“MashaALLAH (God has willed it), we have learned a lot. We came to know ... how [we] can we release our tensions and organize our business[es]. The homework and the exercises helped us to organize our business[es].” (IDI-C-02)*

Participants also reported the positive effects of the mental health aspect of the training. They noted that the stress management exercise was helping them remain calm in difficult business situations. It helped them to handle business aspects more effectively than previous had been out of their grasp. Moreover, it was reported that the training helped them engage better with customers, especially with difficult customers.

## ii. Usefulness and implications of the training

Participants found the training to be useful with regard to: a) managing emotions and stress; b) the effective application of business strategies; and c) personal growth and skills development.

### Box 2. Case Study on Stress Management

Mr. X was running a small clothing unit in Nowshera. He said he was very rude and short-tempered with his customers. It was difficult for him to control his anger, which affected his business.

After receiving training, he is now better able to manage his stress at work. Breathing exercises help him to control his anger in his dealings with his customers. As a result, his customer relations have improved.

*Source: World Bank Group (2018)*

### a) Managing emotions and stress

Participants indicated that due to the nature of their businesses, they faced stressful situations from time to time. This hindered the effective management of their business activities. As a result of the training, participants repeatedly reported that the breathing exercise was most effective in helping them cope with stressful business situations, such as interacting with difficult customers and vendors, and so on. They noted that the exercise makes them feel more relaxed and calmer. As such, they are trying to practise it every day.

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*“The main benefit from the training is now I can think of the solution of problems and I don’t feel [a] burden on my head now. I feel relaxed after the exercise you ... [taught] us.” (IDI-C-01)*

The majority of participants are not only practicing stress management exercises, but they are also educating others about the strategies (such as their colleagues, subordinates, and family members). As one participant commented:

*“I like the breathing exercise; all the components were good and useful. I can talk to my neighborhood friends now to ...[make] the situation better” (IDI-C-05)*

This improved ability led to better stress management, which resulted in improvement in their business and ability to systematically analyze and manage their problems.

*“The training was useful. There were problems in our business, but the coach/facilitator told us to calm down and behave well. I used to get angry about small things, but now I know how to get over it and feel relaxed. They told us to behave well with the customers and have some patience. It comes into my mind while dealing with the customers.” (IDI-C-05)*

### b) Effective application of business strategies

The majority of the participants discussed different business scenarios to which they were able to employ PM+E. These were entrepreneur strategies used to manage problems, increase their circle of influence activities, and disrupt the cycle of adversity. Participants reported that implementing these PM+E strategies helped them in adapting/employing appropriate strategies to address business and personal problems. They are now able to understand their problems better, improve their relationships with their customers, and do effective task management and human resource management

*“We are stable in our business now, [and that] means we are relaxed now. We were doing business, but we were always stressed, sleep deprived and irritated... Now all the things are settled down. Now I have organized my things, my schedule and the payments. I know how to effectively distribute task[s] to employees due to this training. (IDI-C-02) “*

Another participant reported that the training helped him to identify new arenas of doing business and risk taking, such as identifying new customers, initiating new partnerships, and looking for new markets to buy raw materials for the business.

*“It was very useful. I feel very motivated to take more risks. We were very scared to take the risks earlier, but now we can think of getting out of our comfort zone. (IDI-C-03)”*

### c) Personal growth and skill development

Participants reported that training enabled them to improve their personal skills and abilities. They felt more confident in their abilities to face difficult situations and were able to communicate and express their problems more easily and effectively. These improvements helped them deal with market competition, as noted by one of the participants:

*“We were encouraged. There are always ups and downs in the business, but now we are able to fight difficult situation[s] rather than running away from them. We can express our feelings more easily now. I think this is a personal benefit (IDI-NC-04).”*

Similarly, effective anger management was reported. This improved their ability to engage with clients and handle conflicts well. Also, regarding personal skills, participants reported that the training improved their perception about different aspects of business. It helped them to evaluate their problems from every angle, as reported by a participant.

*“I find the circle strategy very useful. Just like a cricketer who has to pay his full attention to the ball. If he fails to give his full attention, he [goes] out. Similarly, we have to give our 100 percent and keep an eye on everything. While in the circle, we can do the business. I do the same now by keeping an eye on everything.”*

In addition, participants reported that they felt more energetic, optimistic and social in their dealings. Referring to the component of experimental mindset, (behavioral activation), participants said that “they gained [a] world vision”, which helped them to understand how the business world works, meaning: one loss is not end of the world.

### iii. Reasons for engagement

Almost all participants noted that the reason they engaged in the program was the promise of learning. Training provided participants a platform to connect with other entrepreneurs operating in the same environment, facing similar problems and challenges. Participants were not only able to learn from expert trainers, but they also got a chance to have fruitful discussions with expert entrepreneurs who were running successful businesses. They would share their experiences and ways of operating a business or performing a task or activity with other entrepreneurs, which remained the most engaging element of the training. This aspect was most pertinent to session 4 regarding the

strengthening of social support. It emphasized the strengthening of participants' social support (for example, from trusted friends, family members, co-workers or community organizations) to promote well-being. As one participant commented:

*The reason for training was to learn from you all. .... people learned not only from training, but also by talking to other people (IDI-C-03).*

In addition, participants reported that the coaches played a key role in encouraging and supporting them, specifically with regard to maintaining good social support. The coaches encouraged them to continue to do so even after the training workshops. Moreover, the coaches spent time discussing how participants could strengthen their social support. In this context, they helped them to develop a practical plan to obtain more social support.

*"At first..., we were afraid [of] what sort of training it will be, what kind of people will come, but the coach/trainers were educated, and it was conducted in an open and friendly environment. We would discuss and problem solve around the challenges, and problems which we were having in our personal and business life... the level of encouragement from coaches was incredible." (IDI-C-02)*

Lastly, participants commented on the skills enhancement that the program offered.

*"We came to know how to systematically organize our business, and how to take it to new heights. So, we learned how to organize things; if you are organized, you get mental satisfaction and it is easier to earn money then." (IDI-C-02)*

### **iv. Reasons for disengagement**

Those who were disengaged were mostly non-completers who had completed either two, one session or no sessions. They were interviewed regarding the reasons why they were unable to attend the training workshops. Two reported reasons that were most common were family- and business-related responsibilities. In the KPK culture, people live in close-knit family and are socially bound to attend marriages and funerals. Adhering to this cultural norm is considered a normal practice. As such, it appears to be the most prominent reason why most of the participants could not attend all of the training workshops.

*"I was alone at my home. I often have to go to attend marriages and deaths." (IDI-NC-06)*

Another reported reason was work responsibilities. One of the participants reported that because of the busy routine, he could not come to the sessions.

*“I was busy at my shop. There was a lot of rush of customers, so I was not able to attend the sessions. Although I tried, I was helpless.” (IDI-NC-04)*

#### **v. Overall program feedback**

Most participants reported that they liked the training, especially the content. In addition, the breathing exercise was repeatedly praised. Overall, the training was deemed informative and effective, as evidenced by the comments of a few of the participants:

*“[What] I like[d] the most about this training was the technique you told us about how to solve our problems. But I like all the techniques, all were very helpful; nothing was useless.” (IDI-C-01)*

*“Everything was informative, but with the help of [the] circle of influence activity, we were able to identify the things which we can influence and those which we cannot.” (IDI-C-03)*

**Image 6.** Circle of Influence and Social Network Mobilization Activity



World Bank Group, 2018.

Another participant reported on a positive aspect of the training that was admired by a diversity of participants. It provided a platform for entrepreneurs from different regions, where they can come together and talk about their programs in a friendly environment.

*“I liked the environment where we all talked about our problems like friends. There were businessmen not only from Nowshera, but also from Mardan.” (IDI-NC-08)*

When participants were asked whether they would recommend the program, the response was positive. The training program was highly recommended for other entrepreneurs in KPK.

*"This training will be helpful for everyone...it opens up our mind[s] and we started thinking beyond our limits (comfort zone)." (IDI-C-01)*

This sentiment was reflected in the data, confirming that the training was the source of motivation for entrepreneurs. They have started to think of new ideas and strategies. One of the participants said he was about to quit the business because of multiple problems. However, after participating, he decided not to give up.

Another key result that emerged from these qualitative inquiries was that SMEs made intentional efforts to improve their support networks. They used their support networks to solve problems, and they started to establish more partnerships and collaborations.

### vi. Feedback about reminders

Participants considered the WhatsApp content useful. Some of the participants could not read, but they would ask someone else in their families to read.

*"This training should be for everyone, it opens up my mind. We had received messages on WhatsApp which are very good and useful. I cannot read those messages, but when I go to home in the evening, my wife read those for me. Messages are useful." (IDI-C-03)*

*"Yes, I have received [the] WhatsApp messages. I feel good, [they] ... remind me [of] what we had talked [about] in training." (IDI-C-03)*

### vii. Suggestions for improvement/recommendations:

Participants suggested useful additions to the existing package of intervention. They offered suggestions in the following key areas: 1) workshop timing; 2) program delivery; 3) target audience; and 4) content and overall program improvement. Details of their suggestions are as follows:

#### a. Workshop timing:

Participants suggested that training should be in the vicinity of their areas where participants can easily go. Participants also recommended arranging workshops on weekends, as weekends are less demanding for businesses. As one participant commented:

*“I think Sunday or Friday are feasible (for workshops). On other days, we have businesses to see and so I think weekends are appropriate. Markets are closed on weekends; we can easily attend sessions.” (IDI-C-05)*

#### b. Program delivery

Suggestions were made regarding personnel, languages, and modes of program delivery. Some of the suggestions were reported by almost all participants, such as the inclusion of business experts in the team of trainers/coaches, as well as including coaches with a business background.

*“I think the coach should be a person who had great experience in business himself. Like, in cricket, the coach is a person who had great experience in cricket.” (IDI-C-03)*

*“The training can be more helpful in networking, [specifically] by including business experts who are successful in their field.” (IDI-C-09)*

Participants also suggested the use of the local language, Pashto, for program delivery.

*“In my opinion, this training is very effective, but in my area most of the people do not understand Urdu. So, it will be great if you [could] give this training in Pashto to them.” (IDI-C-01).*

One of the participants emphasized the use of technology and multimedia in making training more effective. Also, he recommended advertising components of the program to more people using social media.

*“Overall the environment and selection of location was good. But I think technology should be involved as well. Use PowerPoint presentations and projectors for training. Advertise it through Whatsapp and social media. You will involve more people this way and will receive a lot of feedback.” (IDI- C-10)*

#### c. Target audience

When asked about suggestions, participants identified different target audiences who could benefit most from the training. A few participants suggested that the training could be more helpful for those who are beginners and just starting new businesses.

*“The training program was good, but it will be more beneficial for those who have just started his or her business.” (IDI- NC-08)*

## A Study of Fragility, Entrepreneurship and Mental Health

Similarly, another participant suggested that this training should be part of the university curriculum.

*“In my opinion, give this training to the university students. This training should be the first step for business students (MBA) before... [completing their degree].” (IDI- C-10)*

These themes broadly indicate the key factors that contributed to the acceptability and appreciation of the PM+E training program in the KPK and FATA, Pakistan. The main factors that contributed to the suitability of the program to its target population included: 1) the widespread need for psychosocial intervention in the current study area; 2) the appropriateness of the intervention to its target population; and 3) the profile of the coach/trainer, with some business experience, understanding —and an engaging style/personality.

Due to the lack of services for the betterment of the mental health and well-being of entrepreneurs, people in the community welcomed the program open-heartedly. No major concerns were raised in the community, and the environment was generally supportive of the program.

The majority of the participants found that group sessions helped them gain insight into their difficulties and explore solutions. Participants reported that they were not aware of the gravity and intensity of their problems before coming to the training. According to 80 percent of the participants, the intervention strategies of the program — such as managing problems, managing stress, strengthening social support, behavioral activation and self-care — can be used to solve their personal as well as their business problems.

Training has also helped entrepreneurs gain more confidence. Specifically, it enhanced their communications and problem-solving skills, enabling them to conduct their businesses more effectively. The training also helped them to grasp the content and learn from each other’s experiences. In this regard, they suggested that this type of training be held more often.

### Suggestions for training

- The training session should be delivered by a coach who is familiar with and aware of the local context. Such coaches/trainers were able to develop a rapport with participants, discuss problems and brainstorm solutions. It will help the program to succeed.
- Gender matching is a key consideration in the delivery of training sessions in conservative settings. Culturally, it was not acceptable for females to attend any training sessions delivered by male trainers.

**Table 21.** Thematic Analysis of Training Needs Assessment to PM+E Intervention

Themes	Responses
<b>Overall experience</b>	Enhanced problem-solving techniques and skills
	Better stress management and client engagement
	Supportive environment and opportunity to meet other entrepreneurs
<b>Effectiveness of the training</b>	Stress and emotional management
	Effective application of business strategies
	Personal growth and skills development
	Increase in sense of self-efficacy
<b>Suggestion for improvements/ recommendation</b>	Feasibility of workshop timing and venue
	Use of local language (Pashto)
	Business novices and students as target audience
	Use of technology and business experts for program delivery
	Content enhancement
<b>Reasons for engagement</b>	Learning new skills and strategies
	Friendly coaches
	Conducive and open environment
<b>Reasons for disengagement</b>	Business-related responsibilities/ busy routine
	Personal life circumstances
<b>General feedback about program</b>	Breathing exercise and cycle of influence activity were the most liked activities
	Recommendation to other entrepreneurs
<b>Feedback about reminders</b>	Good content of messages
	Literacy/language barriers

Source: World Bank Group (2018).

- Individually-tailored programs are needed for each segment, such as female entrepreneurs, high- and low-income entrepreneurs, different SME sectors and different geographical regions. Therefore, the curriculum needs to be adapted to target specific entrepreneur groups in different settings to improve the applicability and effectiveness of the program.

## 8.4 Challenges Faced and Mitigation Approaches

The mitigation strategies to deal with the contextual challenges to the delivery of PM+E to the SME entrepreneurs are discussed below.

### ***Challenge 1: Response rate***

It was challenging to attract a SME entrepreneur business audience widely spread across KPK and FATA to central locations during working hours for group training workshop. The response rate was 64 percent which was below the expected 75 percent used for sample size calculations. Those who refused to participate in the training included SME entrepreneurs who did not receive the invitations sent out, or who had reservations about the grant mechanisms, or who lived in remote areas.

In order to ensure participation, workshops were conducted by the team at the time and place of most convenience for the SME entrepreneurs. Some workshops were conducted in participants' offices to increase the response rate. For instance, training workshops in Hangu were conducted in the shop of one of the participants. The role of the World Bank field offices was critical in coordinating and increasing the response rate of participants. To achieve a good response rate for the PM+E group workshops, pro-active coordination with the World Bank team and the participants was assured. Organizing small group workshops in a range of locations and facilitating participant engagement improved the response rate but required stretching the implementation budget thin.

### ***Challenge 2: Heterogeneity of target population***

The beneficiaries were heterogeneous with respect to key attributes such as age, gender, education (ranging from no education to holders of a PhD), work experience (as few as 4 years to as many as 25 years), business type (from large established businesses to small shops), exposure (from international exposure to national/local market exposure), language (very few people can speak English; some can speak Urdu; but some can only speak their local language, Pashto) and technical expertise (from highly skilled, such as an app developer, to minimum know-how, for example, mobile repairing). In order to cater to this diversity of SME entrepreneurs, the PM+E program developed "affinity groups" and covered generic aspects common to all groups, such as problem solving, behavioral activation, stress management and adaptive skills. The training was delivered in Urdu or the local language where participants can only speak/understand Pashto. This might have made the curriculum less interesting for some entrepreneurs who wanted to engage on very personality- or firm-specific issues.

**Image 7.** Brainstorming and Documenting Follow-Up Actions Post Training



*World Bank Group, 2018.*

### ***Challenge 3: Gender roles and cultural barriers***

Traditionally, the KPK and FATA regions are a gender-conservative society. Female SME entrepreneur-led businesses are mostly family businesses. However, they are supported by male members of the family, that is, the son or the husband. Culturally, it is not widely acceptable for females to do business and to move freely without a chaperone, such as a husband/son. In the training program, only one female SME entrepreneur group could be established because only a few female participants agreed to come to the training venue. Also, there were fewer female entrepreneur beneficiaries as compared to male entrepreneurs in the list of beneficiaries provided by the ERKF. Therefore, the participation rate of female SME entrepreneurs was low. To increase the participation rate, the family members of female SME entrepreneurs were invited to be part of training workshops.



**A worker at the cloth section of a cosmetics shop and general store.**  
Visual News Associates / World Bank

# Recommendations, Study Limitations, and Conclusions

## 9.1 Highlights and Limitations

This section of the report outlines implications of the project for policy makers working in areas such as small-medium enterprise development and public health. The purpose of the policy recommendations is to stimulate further development of and support for the replications and implementation of the current program.

Some interesting aspects from a curriculum development, implementation, and training the trainer perspective were:

### *Highlights*

1. **Leveraging a CBT curriculum and adapting it to a business context through development of Problem Management Plus for Entrepreneurs (PM+E):** One of the innovations of the study is the integration of business curriculum into a psychological intervention, based on the principles of WHO-certified PM+. The training curriculum, implemented in non-mental health settings and tested with non-clinical population-SME entrepreneurs (generally considered a highly productive population of the society) in KPK and FATA, showed promising results. This combination of curricula has the potential to be leveraged for other settings such as for supporting cognitive behavioral training for teachers - in a low-resource/refugee setting - who have been known to have high levels of unacknowledged distress due to occupation and environmental stressors.
2. **Adapting recruitment and delivery of program for a geographically dispersed, conflict affected local context:** The implementation set up was designed to support adapting the recruitment and delivery of program for the local context through the following approaches.

a. *Using cost-effective, distant model to recruit participants*

The spread of beneficiaries across large geographic area ranging from Hangu to Peshawar to Nowshera could have made the recruitment procedure a bit more challenging. To overcome this challenge, a pragmatic approach was used to recruit the SME entrepreneurs of KPK and FATA. A remote and cost-effective model (telephonic interview) was used to conduct program pre and post program evaluation assessments.

b. *Training delivery at local business sites*

A challenging factor for intervention delivery was the large geographical spread of the participants. To overcome the logistical barriers, training workshops were held at local business sites of the SME entrepreneurs to make it convenient for participants to attend the workshops.

3. **Delivery of program through use of non-specialist providers (NSPs) and a local trainers-cascade model of training to allow for future scalability:** Another interesting aspect of the program was the use of NSPs trained using a cascade model of training and supervision which was proven effective in FCV settings of KPK and FATA. Instead of relying on scarce specialist providers in FCV settings, training of NSPs was embedded in the training process of the program that ensured building a pipeline of trainers with appropriate supervision. The PM+E workshops were delivered by a local coach/trainer- who was familiar with the contextual factors and was crucial for program success. These coaches/trainers were able to develop rapport with participants, that help participants to discuss their problems and brainstorm solutions. Local coaches were able to deliver program with fidelity in diverse settings of KPK and FATA. A supervisor based in Islamabad provided fortnightly supervision to 3 NSPs who conducted the 20 workshops each with 10 participants in 9 different sites in the region.

While the study helped answer crucial questions on research and implementation of PM+E in low-resource settings, it also revealed important limitations and constraints of implementing such programs in challenging environments.

### Limitations

1. **Heterogeneity in participants required formation of affinity groups which increased complexity of operation and prevented stratified randomization:** First, the heterogeneity in the participants was significant. Participants from urban areas especially from Peshawar/Nowshera were high-end entrepreneurs, with high educational background and advanced business skills; successfully operating in the urban communities for many years. Such participants were extremely busy, who found it difficult to commit to the workshops amidst competing business demands. These characteristics influenced their engagement and participation in workshops

and hence, may have impacted the outcome of the intervention. On the other hand, entrepreneurs from micro and small enterprises from Hangu and Lower Dir attended most sessions and were fully engaged. They also provided extremely useful feedback on improving the curriculum and were personally invested in improving their well-being as well as bringing the program to their employees. Although the formation of affinity groups helped address the heterogeneity problem to an extent by grouping similar entrepreneurs together, it also increased the complexity of the operation. In the future, it might make sense, to offer such programs to mostly micro and small entrepreneurs who need it the most and don't have the resources to attain it, while offering guidance and materials (instead of actual training) to the large-medium ones who have the wherewithal to access this training in the market. Similarly, future studies could benefit from using larger sample sizes (calculated circa 630+) that can provide improved estimates through stratified randomization of the sample along critical characteristics.

2. **Geographic spread among participants increased delivery complexity and contributed to lower attendance rates/higher attrition rates:** The geographic spread of the participants related additional challenges for intervention delivery. Training sessions were held at local business sites of the SME entrepreneurs to make it convenient for them to attend the training. However, there were some participants from far off places, who found it difficult to attend the training workshops due to long travel time to reach the training venues. The evidence on using telephone CBT has been growing with some encouraging results, and it might be worthwhile in the future, to try a hybrid model with the first few sessions being face-to-face and then continuing sessions over the phone. This might enable business-men in far-flung areas to partake in the training.

3. **Conflict persistence lowered attendance rates:**

Third, ongoing tensions in the region, at times, affected the willingness of participants to travel. Even though this is not wholly avoidable, through frequent communication, it was possible to have participants attend at least 3 sessions (out of 5) on average. This is considered the minimum threshold for PM+. Going forward, it will be important to scale-up the work in other sites to collect comparable data to add to the evidence base.

These limitations in sample size most likely affected the ability to detect significant effects of the intervention on outcome variables such as prevalence, which only shows statistically significant effect when data is pooled across the two rounds, despite having large effect sizes using

Although the formation of affinity groups helped address the heterogeneity problem to an extent by grouping similar entrepreneurs together, it also increased the complexity of the operation.

ANCOVA. Attendance and attrition rates could be improved in the future by focusing the training on low-income entrepreneurs in far-flung areas who attend diligently, and who do not have substitute networks and resources to otherwise access it.

It is worthwhile mentioning that what appeared to be a limitation at the start showed up as a strength. The anticipated taboo around the issue of mental health which could have been a reason for lower attendance and high attrition was found to be a less significant factor than expected. On the other hand, a process evaluation<sup>11</sup> revealed that SME entrepreneurs found the unique content and its focus on stress mitigation in a high risk prone environment relevant to their existing circumstances, and wished to promote the training among their employees. The framing of the curriculum, in language of self-management and leadership improvement, was key.

**Attendance and attrition rates could be improved in the future by focusing the training on low-income entrepreneurs in far-flung areas who attended diligently.**

## 9.2 Conclusions

The project demonstrates that empirical research, including Randomized Control Trials (RCTs), can be conducted in challenging, FCV settings through appropriate rapid training of local researchers and non-specialist providers (NSPs). The ERKF project provided a unique setting for researchers to test the hypothesis that financial assistance, coupled with the 5-week PM+E training intervention, can be more effective at reducing psychological stressors of SME entrepreneurs in FCV contexts, such as symptoms of depression and anxiety — the most common manifestations of psychosocial distress.

The results of this study are encouraging for a few reasons.

First, it confirms that even non-clinical populations suffer from clinically significant levels of mental health issues such as depression and anxiety. The baseline data indicates that 1 of every 3 to 4 SME entrepreneurs in KPK experiences symptoms of depression and anxiety. This is new data and provides a sense of the gravity of the situation. It would help to make a case for mental health services to be made available for not only clinical populations, but

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<sup>11</sup> Details in Chapter 8 - "Process Evaluation" - of this study.

Meaningful improvements in mental health were achieved, with improvements persisting, and indeed increasing, beyond the immediate post-intervention period.

also for populations at-risk, as per the Lancet Commission recommendations<sup>12</sup>. As such, it can also help to prevent burgeoning healthcare costs in the future, ensuring a decent quality of life for all.

Second, meaningful improvements in mental health were achieved, with improvements persisting, and indeed increasing, beyond the immediate post-intervention period. The intervention leads to reduced odds of experiencing symptoms of depression and anxiety (0.46 time the odds compared to the control group), and results in a statistically significant decline in the PHQ-ADS score of treatment group entrepreneurs compared to the control group when data is pooled across both rounds. Essentially, this reduces

the prevalence rate in the treatment group by more than half. On intensity of occurrence, beneficiaries in the treatment group experienced statistically significant improvements compared to the control group, using pooled data.

Third, given the limited evidence base on the impact of psychosocial interventions on mental health for SME entrepreneurs, this study serves as a positive example of the feasibility of implementing such interventions in post-conflict and violence-affected contexts. The tool that was developed using existing literature and a rigorous mixed-methods approach can be applied to such environments to collect high quality information.

Finally, the intervention was delivered by non-specialist providers (NSPs), circumventing the need for scarce specialist resources. The cascade model of training and supervision can serve to train NSPs in other FCV-affected areas, not only for entrepreneurs but also for other beneficiary groups. The curriculum can be adapted to adult income-earner populations, as well as those affected by forced displacement. For example, teachers who are in the stressful and critical job of instructing in FCV contexts might benefit from such CBT based training.

The intervention also revealed several limitations and constraints of implementing such programs and evaluations in challenging environments. The geographical spread and conflict persistence had an impact on attendance and attrition rates. Although the average attendance rate was above 60 percent, which is considered quite good for FCV contexts, it was lower than the 75 percent attrition anticipated by the team. These limitations in

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<sup>12</sup> According to the Lancet Commission report on Global Mental Health (2018), policymakers and practitioners need to “broaden the global mental health agenda from a focus on reducing the treatment gap for people affected by mental disorders to the improvement of mental health for whole populations.”

## A Study of Fragility, Entrepreneurship and Mental Health

sample size most likely affected the ability to detect significant effects of the intervention on outcome variables such as prevalence, which only shows statistically significant effect when data is pooled across the two rounds, despite having large effect sizes using ANCOVA. This attendance and attrition rates could be improved in the future by focusing the training on specific groups of entrepreneurs. From this work, it appears that low-income entrepreneurs (as opposed to high income entrepreneurs) tend to attend diligently probably as they do not have substitute networks and resources to otherwise access such training. Larger sample size (calculated circa 630+) would allow to stratify randomization along critical characteristics in future studies.

Overall, the findings from this study introduce a novel and scalable method of implementing useful psychosocial training and conducting research in a challenging real-life setting. Positive trend in the results is promising and clinically important, and could be further built upon in larger studies in the future.

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# Appendix 1: Participants' Profile (Rapid Needs Assessment)

**Table 22.** Participant Profile

Sr#	ID	Gender	Age	Nature of Business	Education	Experience(yrs)
1	02	Male	48	Owner of Hotel & Restaurant	Nil	25
2	03	Male	40	Education Sector	Ph. D	10
3	04	Male	40	IT company	Ph.D.	10
4	011	Female	45	Hotel & Restaurant	Ph.D.	4 years
5	016	Female	50	Boutique,	10 <sup>th</sup> Grade	16
6	017	Female	58	Education	Masters	25
7	018	Male	30	Education	Masters	5
8	019	Male	28	Petrol Station	Bachelors	3
9	020	Male	45	Hospital & labs	MBA	13
10	021	Male	33	Trading & Warehouse	12 <sup>th</sup> Grade	8
11	022	Male	31	Trading & Warehouse	10 <sup>th</sup> Grade	18
12	023	Female	40	Hospital & Labs	Doctor	12
13	024	Male	55	Trading & Warehouse	12 <sup>th</sup> Grade	23
14	05	Male	42	Educational Institution	MBA	17
15	09	Male	53	Wood and Furniture	Nil	5
16	08	Male	43	Trading and warehouse	12 <sup>th</sup> Grade	7
17	015	Male	30	Mobile repairing shop	10 <sup>th</sup> Grade	10

# Appendix 2: Semi-structured Interview Guide (English Version)

## Informed Consent form

Asalamualikum! My name is .... I work as a researcher at XYZ, a non-profit organization with an aim to develop and test local solutions for the existing problems of our population. We are working under the guidance of the World Bank Group.. Today, we came here to ask you about the challenges and problems being faced by the SME entrepreneurs (male and female alike) working in Fragile, Conflict and Violent settings of KPK and FATA. The purpose of this interview is to identify the key challenges of SME entrepreneurs so that we can set up a training program that will aid these entrepreneurs better cope with these challenges.

But to further develop this program, we would need your cooperation: we will ask you some questions and for that we need 1 hour of your time. Please note that this interview is not related to and will have no consequences later on whatsoever on your prospective World Bank grants. With your consent, these interviews will be audio recorded. All the information will be kept confidential and will only be used for the purpose of program development. Should you have any queries, please feel free to ask.

I confirm that I have read and understood the informed consent form.	Yes	No
I had the opportunity to consider this information, ask questions and have had those answered satisfactorily.	Yes	No
I understand that my participation is voluntary and that I am free to withdraw myself at any time without giving a reason and without penalty.	Yes	No
I understand that my interviews will be audio recorded and I consent to the audio recordings of my interviews.	Yes	No
I understand that my information will be limited to qualified researchers and will only be used for research purposes.	Yes	No

Participants' ID \_\_\_\_\_

Gender: \_\_\_\_\_

Name of the city: \_\_\_\_\_

Age: \_\_\_\_\_

Business \_\_\_\_\_

Business experience? \_\_\_\_\_

## Topic Guide for Rapid Needs Assessment (Step I) (English version)

I want to know about all the challenges that are faced by SME entrepreneurs (male and female) working in KPK and FATA. Please think of as many challenges as you can and I will enlist them accordingly.

### *Selected problems:*

1. Please tell me about this problem (Name of the problem) in detail.  
(Note for interviewer: When the interviewee gives details, probe for the following)

### **Part 1:**

1. What do you think how does this problem manifest itself? (signs & symptoms, manifestations)
2. What do you think are the causes of these problems? (causes)
3. What do you think are the effects of these problems on daily life? (effects)
4. How do you think SME entrepreneurs cope/tackle with these problems?
5. What could be further done to cope with these problems? (suggestions)

## Topic Guide for Intervention Development & Program Planning (Step II)

We talked with other SME entrepreneurs, like yourself, who are the beneficiaries of World Bank grants and asked them about the challenges faced by SME entrepreneurs working in FCV settings of KPK and FATA. They informed us about following problems: lack of professional and skill development training, financial problems, problems due to insecurity, lack of social support, people are afraid and fearful due of terrorist activity (explosion). They further informed us that due to all these problems, their personal and professional life is affected and it becomes difficult for them to cope with these difficult situations.

1. Can you tell us about any other problem that SME entrepreneurs here might face?
2. SME entrepreneurs that we talked to informed us that due to these challenges people experience tension, stress and anxiety. Can you tell us further about this?
3. What do you think why this happens?
4. What is the reason behind this?
5. What do you think people do to reduce their tension/stress?
6. Do people take help from others to reduce their tension?
  - a. If yes, explain how?
  - b. In your opinion, what further could be done to tackle this problem?
7. Do you think that there should be any training program to reduce such tensions/stressors?
8. What type of training should there be?
9. In your opinion, what should be the content of the training?
10. What do you recommend about the duration of the training?
11. Will it be possible for you to attend the training?
12. What should be the venue of the training?
  - a. In your opinion, what are the suitable days for this type of training?
  - b. Who should be the trainers?
  - c. In your opinion, do you recommend separate venues for male and female?
13. In your opinion, will you prefer use of mobile along with face to face training?
  - a. If yes, then how?
  - b. If no, then why not?
14. In your opinion, is use of mobile phones suitable for female too?
15. We could meet few female entrepreneurs in Peshawar, could you tell us about their business related problems/stressors (Do you know their problems?)
  - a. In your opinion, what are the reasons of tension/stress in females?
  - b. What can be the hurdles for females to attend this type of training programs?
  - c. What can we do to reduce such issues, problems related to female attendance?
  - d. What should we do to help females to participate in this type of training program?
16. Would you like to give us any suggestions regarding the training?
17. In the end, would you like to share anything else regarding the topic?

# Appendix 3: Baseline and Midline Survey Instruments

## Baseline instrument

**Introduction:** I work as a researcher at XYZ, a non-profit organization with an aim to develop and test local solutions for the existing problems of our population. We are working under the guidance of the World Bank Group team. Today I will ask you some questions about your business and personal well-being. These questions refer to the business activities being supported by the WBG project through the ERKF grants. As you're one of the beneficiaries of World Bank grant for business, among other things, we are interested to know how these grants are helping you and how you can be further facilitated. Your provided information will be kept confidential and only will be used for the research purposes.

### *Section A: Demographics:*

#### **1. Personal Information:**

1. **ID:**
2. **Gender:**
  1. Male
  2. Female
3. **Age (years):**
4. **How many years of formal education you have completed?**  
(Record number of years)
5. **Marital status:**
  1. Married
  2. Unmarried
  3. Divorced
  4. Widow
6. **Household size**
7. **Household income**

8. **No of dependents**  
(Children/Siblings/Parents and grandparents/Other family members)
9. **Accommodation:**
  1. Owned house
  2. Rented house
  3. Others

## 2. Entrepreneurs experience

### i. Human capital

#### *(a) Previous training:*

##### **1. Have you ever received any business training/ apprenticeship?**

1. None
  2. Yes
- If yes please specify

#### *(b) Entrepreneurial experience:*

##### **2. How many other businesses have you helped to start as an owner or part-owner?**

(Record number)

### ii. Industry groups:

#### **1. What kind of business are you starting/have started?**

1. Retailer
2. Services
3. Wholesale trade
4. Manufacturing
5. Others: please specify:

#### **2. Form of business**

1. Sole proprietorship
2. Partnership
3. Others

#### **3. How long have you been doing this business?**

Number of years:

#### **4. How many full-time employees do you have?**

Specify number (FTEs)

- i. Number of male employees
- ii. Number of female employees
- iii. Average salary of full time employees

4a. **How many wage-based employees do you have?**

Specify number

- i. Number of male employees
- ii. Number of female employees
- iii. Average salary of wage-based employees

5. **How many indirect employees do you have?**

Specify Number

iii. Resource endowment:

1. **The total amount invested to this business either to purchase ownership or as a loan to this business since its inception.**

Amount (in PKR)

2. **The total amount invested to this business either to purchase ownership or as a loan to this business in the past year (March 2017-March 2018).**

Amount (in PKR)

iv. Institutional forces

*(a) Investor funding requirement:*

1. **Have you ever been granted a loan/grant for your business (other than grant by WBG)?**

0=No

1=Yes

If yes,

Amount (in PKR)

2. **Do you expect to ask for funds (loans/grants) in the future?**

0=No

1=Yes

(N/A if outside financial support not relevant for this new business)

3. **If yes to the previous question, where do you expect to ask for funds (loans/grants)?**
4. **For what purpose you would get a loan?**

*(b) Professional membership:*

1. **Has this business become a member of a trade or industry association (i.e chamber of commerce)?**

1 =Yes

0= No

(N/A if not relevant for this new business)

If No in question 1, then:

2. **Will this business become a member of a trade or industry association in the future?**

0= No

1 =Yes

(Not applicable, if not relevant to this new business)

v. Opportunity attractiveness

1. **What were your business sales during the past year?**

(If not applicable or Don't know)

What were your business sales during the past 3 months?

2. **Do you have a sales target for next year?**

0= No

1 =Yes

If yes, what is your sales target for next year?(Recorded as the log of the first one-year expected sales)

(If not applicable or Don't know)

**What is your sales target for next 3 months?**

3. **How many employees do you expect to hire for the next year?**
4. **How much profit did you get from this business in the last year?**  
(If not applicable or Don't know)
5. **How much profit did you get from this business in the last 3 months**

vi. Business planning

1. **Have you written a business plan for this business?**

0=No (not yet, will in the future; No, not relevant)

1=Yes

If question 1a is yes, then:

2. **Rate the statement: "I feel confident about the progress I can make on the business plan activities in the next six months?"**

1 = yes

2= No

3= Don't know

vii. Social connectedness

Rate each item on a scale from 1 to 5, where

1 = Strongly disagree

2 = Disagree

3 = Neutral

4 = Agree

5 = Strongly agree

		1	2	3	4	5
1.	There is a special person who is around when I am in need	1	2	3	4	5
2.	There is a special person with whom I can share my joys and sorrows	1	2	3	4	5
3.	My family really tries to help me	1	2	3	4	5
4.	I get the emotional help and support I need from my family	1	2	3	4	5
5.	I have a special person who is a real source of comfort to me	1	2	3	4	5
6.	My friends really try to help me	1	2	3	4	5
7.	I can count on my friends when things go wrong	1	2	3	4	5
8.	I can talk about my problems with my family	1	2	3	4	5
9.	I have friends with whom I can share my joys and sorrows	1	2	3	4	5
10.	There is a special person in my life who cares about my feelings	1	2	3	4	5
11.	My family is willing to help me make decisions	1	2	3	4	5
12.	I can talk about my problems with my friends	1	2	3	4	5

viii. Entrepreneurial Orientation and Related Behaviors

Behaviors (including IEO Dimensions)	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<b>Autonomy</b>					
1. I always complete everything I initiate	1	2	3	4	5
2. I am always positive about problems arising in my life, and solve them on my own	1	2	3	4	5
3. Even if I fail many times, I will keep on trying until I succeed on this business	1	2	3	4	5
4. I make plans and go by them	1	2	3	4	5
<b>Innovativeness</b>					
1. I always try to make some changes in my business	1	2	3	4	5
2. I actively look for new methods of production, marketing or administration	1	2	3	4	5
3. I consult the internet, magazines, newspapers, or books to learn news about my industry	1	2	3	4	5
4. I am excited about the growing number and type of products and services that the company offers	1	2	3	4	5
<b>Risk taking</b>					
1. I enjoy facing a difficult task from which other people want to keep away	1	2	3	4	5
2. I prefer high risk if there is a possibility of high return	1	2	3	4	5
3. I prefer to make a bold investment that could harvest a superior return	1	2	3	4	5
4. I am willing to fail in the pursuit of being innovative	1	2	3	4	5
<b>Competitive aggressiveness</b>					
1. I prefer aggressive price competition	1	2	3	4	5
2. I try hard to take customers from competitors	1	2	3	4	5
3. I watch competitors' business strategies to react against them promptly	1	2	3	4	5
4. I prefer aggressive marketing of new product/services through the Internet (or other resources)	1	2	3	4	5
<b>Information seeking/Proactive Behavior</b>					
1. I consult other entrepreneurs of my community on their business practices	1	2	3	4	5
2. I contact my local authority to obtain information on business opportunities	1	2	3	4	5
3. There are various financing opportunities to expand my business	1	2	3	4	5
4. There are various new products to integrate into my business	1	2	3	4	5
5. I can easily adapt my products to comply with regulatory standards	1	2	3	4	5

Behaviors (including IEO Dimensions)	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<b>Impulsiveness</b>					
1. Before acting I often ponder on the possible consequences of my actions	1	2	3	4	5
2. I say things without thinking	1	2	3	4	5
3. I get angry easily	1	2	3	4	5
4. If someone is disrespectful to me, I respond in a harsh manner	1	2	3	4	5

ix. Future planning behavior of the entrepreneur

*Section A: Future Strategy Questionnaire*

No	Do you have plans to:	Possible answers		
		I have no plans.	I have started planning.	I have detailed plans.
A	Collect data on suppliers, customers, or competitors?	1	2	3
B	Acquire additional capital for your company?	1	2	3
C	Improve your company's marketing efforts, for example, with a promotion or advertising?	1	2	3
D	Visit one of your competitors to become familiar with the products offered?	1	2	3
E	Take out time every week to plan activities for the week?	1	2	3

*Section B: Personal Health Questionnaire (PHQ-9)*

Now I will be asking you some questions about your health

Over the last 2 weeks, how often have you been bothered by any of the following problems:		Not at all	Several days	More than half of the days	Nearly every day
1.	Little interest or pleasure in doing things	0	1	2	3
2.	Feeling down, depressed, or hopeless	0	1	2	3
3.	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
4.	Feeling tired or having little energy	0	1	2	3
5.	Poor appetite or overeating	0	1	2	3
6.	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
7.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
8.	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
9.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

**Impact Question**

How much are these difficulties interfering in your relations and business relevant work?

1. Not at all
2. To some extent
3. To very extent
4. To a great extent

*Section C: GAD-7 (Psychological distress)*

Over the last 2 weeks, how often have you been bothered by the following problems:		Not at all	Several days	Over half the days	Nearly every day
1.	Feeling nervous, anxious, or on edge	0	1	2	3
2.	Not being able to stop or control worrying	0	1	2	3
3.	Worrying too much about different things	0	1	2	3
4.	Trouble relaxing	0	1	2	3
5.	Being so restless that it's hard to sit still	0	1	2	3
6.	Becoming easily annoyed or irritable	0	1	2	3
7.	Feeling afraid as if something awful might happen	0	1	2	3

## A Study of Fragility, Entrepreneurship and Mental Health

### Section D: WHO-5 (Well-being Index)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. *Notice that higher numbers mean better well-being.*

*Example:* If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick/choose in the box with the number 3 in the upper right corner.

		All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1.	I have felt cheerful and in good spirits	5	4	3	2	1	0
2.	I have felt calm and relaxed	5	4	3	2	1	0
3.	I have felt active and vigorous	5	4	3	2	1	0
4.	I woke up feeling fresh and rested	5	4	3	2	1	0
5.	My daily life has been filled with things that interest me	5	4	3	2	1	0

### Section E: PCQ (Psychological capital; Hope, Optimism, Resilience, Self-efficacy)

Below are statements about you with which you may agree or disagree.

Using the scale of 1 to 6, please indicate your agreement or disagreement with each statement. Where 1 = Strongly disagree, 2= Disagree, 3= Somewhat disagree, 4= Somewhat agree, 5= Agree, 6= Strongly agree.

		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1	I feel confident in representing my work area in meetings with important people e.g. management, bankers, officials etc.	1	2	3	4	5	6
2	I feel confident contributing to discussions about the organization's strategy.	1	2	3	4	5	6
3	I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
4	If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
5	Right now, I see myself as being pretty successful at work.	1	2	3	4	5	6
6	I can think of many ways to reach my current work goals.	1	2	3	4	5	6
7	At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
8	I can be "on my own," so to speak, at work if I have to.	1	2	3	4	5	6
9	I usually take stressful things at work in stride.	1	2	3	4	5	6
10	I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6
11	I always look on the bright side of things regarding my job.	1	2	3	4	5	6
12	I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6

## Midline survey instrument (3 months' post intervention)

### Section A: Personal Health Questionnaire (PHQ-9)

Now I will be asking you some questions about your health.

Over the last 2 weeks, how often have you been bothered by any of the following problems:		Not at all	Several days	More than half of the days	Nearly every day
10.	Little interest or pleasure in doing things	0	1	2	3
11.	Feeling down, depressed, or hopeless	0	1	2	3
12.	Trouble falling or staying asleep, or sleeping too much	0	1	2	3
13.	Feeling tired or having little energy	0	1	2	3
14.	Poor appetite or overeating	0	1	2	3
15.	Feeling bad about yourself — or that you are a failure or have let yourself or your family down	0	1	2	3
16.	Trouble concentrating on things, such as reading the newspaper or watching television	0	1	2	3
17.	Moving or speaking so slowly that other people could have noticed? Or the opposite — being so fidgety or restless that you have been moving around a lot more than usual	0	1	2	3
18.	Thoughts that you would be better off dead or of hurting yourself in some way	0	1	2	3

## A Study of Fragility, Entrepreneurship and Mental Health

### Section B: GAD-7 (Psychological distress)

Over the last 2 weeks, how often have you been bothered by the following problems:		Not at all	Several days	Over half the days	Nearly every day
8.	Feeling nervous, anxious, or on edge	0	1	2	3
9.	Not being able to stop or control worrying	0	1	2	3
10.	Worrying too much about different things	0	1	2	3
11.	Trouble relaxing	0	1	2	3
12.	Being so restless that it's hard to sit still	0	1	2	3
13.	Becoming easily annoyed or irritable	0	1	2	3
14.	Feeling afraid as if something awful might happen	0	1	2	3

### Section C: WHO-5 (Well-being Index)

Please indicate for each of the five statements which is closest to how you have been feeling over the last two weeks. *Notice that higher numbers mean better well-being.*

*Example:* If you have felt cheerful and in good spirits more than half of the time during the last two weeks, put a tick/choose in the box with the number 3 in the upper right corner.

Items	All of the time	Most of the time	More than half of the time	Less than half of the time	Some of the time	At no time
1. I have felt cheerful and in good spirits	5	4	3	2	1	0
2. I have felt calm and relaxed	5	4	3	2	1	0
3. I have felt active and vigorous	5	4	3	2	1	0
4. I woke up feeling fresh and rested	5	4	3	2	1	0
5. My daily life has been filled with things that interest me	5	4	3	2	1	0

### Section D: PCQ (Psychological capital; Hope, Optimism, Resilience, Self-efficacy)

Below are statements about you with which you may agree or disagree.

Using the scale of 1 to 6, please indicate your agreement or disagreement with each statement. Where 1 = Strongly disagree, 2= Disagree, 3= Somewhat disagree, 4= Somewhat agree, 5= Agree, 6= Strongly agree.

		Strongly disagree	Disagree	Somewhat disagree	Somewhat agree	Agree	Strongly agree
1	I feel confident in representing my work area in meetings with important people e.g. management, bankers, officials etc.	1	2	3	4	5	6
2	I feel confident contributing to discussions about the organization's strategy.	1	2	3	4	5	6
3	I feel confident presenting information to a group of colleagues.	1	2	3	4	5	6
4	If I should find myself in a jam at work, I could think of many ways to get out of it.	1	2	3	4	5	6
5	Right now, I see myself as being pretty successful at work.	1	2	3	4	5	6
6	I can think of many ways to reach my current work goals.	1	2	3	4	5	6
7	At this time, I am meeting the work goals that I have set for myself.	1	2	3	4	5	6
8	I can be "on my own," so to speak, at work if I have to.	1	2	3	4	5	6
9	I usually take stressful things at work in stride.	1	2	3	4	5	6
10	I can get through difficult times at work because I've experienced difficulty before.	1	2	3	4	5	6
11	I always look on the bright side of things regarding my job.	1	2	3	4	5	6
12	I'm optimistic about what will happen to me in the future as it pertains to work.	1	2	3	4	5	6

**Impact Question**

How much are these difficulties interfering in your relations and business relevant work?

1. Not at all
2. To some extent
3. To very extent
4. To a great extent

Section E: Entrepreneurial Orientation and Related Behaviors

Behaviors (including IEO Dimensions)	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<b>Autonomy</b>					
1. I always complete everything I initiate	1	2	3	4	5
2. I am always positive about problems arising in my life, and solve them on my own	1	2	3	4	5
3. Even if I fail many times, I will keep on trying until I succeed on this business	1	2	3	4	5
4. I make plans and go by them	1	2	3	4	5
<b>Innovativeness</b>					
1. I always try to make some changes in my business	1	2	3	4	5
2. I actively look for new methods of production, marketing or administration	1	2	3	4	5
3. I consult the internet, magazines, newspapers, or books to learn news about my industry	1	2	3	4	5
4. I am excited about the growing number and type of products and services that the company offers	1	2	3	4	5
<b>Risk taking</b>					
1. I enjoy facing a difficult task from which other people want to keep away	1	2	3	4	5
2. I prefer high risk if there is a possibility of high return	1	2	3	4	5
3. I prefer to make a bold investment that could harvest superior return	1	2	3	4	5
4. I am willing to fail in the pursuit of being innovative	1	2	3	4	5
<b>Competitive aggressiveness</b>					
1. I prefer aggressive price competition	1	2	3	4	5
2. I try hard to take customers from competitors	1	2	3	4	5
3. I watch competitors' business strategies to react against them promptly	1	2	3	4	5
4. I prefer aggressive marketing of new product/services through the Internet (or other resources)	1	2	3	4	5
<b>Information seeking/Proactive behavior</b>					
1. I consult other entrepreneurs of my community on their business practices	1	2	3	4	5
2. I contact my local authority to obtain information on business opportunities	1	2	3	4	5
3. There are various financing opportunities to expand my business	1	2	3	4	5
4. There are various new products to integrate into my business	1	2	3	4	5
5. I can easily adapt my products to comply with regulatory standards	1	2	3	4	5

Behaviors (including IEO Dimensions)	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
<b>Impulsiveness</b>					
1. Before acting I often ponder on the possible consequences of my actions	1	2	3	4	5
2. I say things without thinking	1	2	3	4	5
3. I get angry easily	1	2	3	4	5
4. If someone is disrespectful to me, I respond in a harsh manner	1	2	3	4	5

*Section F: Social Support (MSPPS)*

Rate each item on a scale from 1 to 5.

1=Strongly disagree

2=Disagree

3=Neutral

4=Agree

5=Strongly agree

Sr. No		1	2	3	4	5
13.	There is a special person who is around when I am in need	1	2	3	4	5
14.	There is a special person with whom I can share my joys and sorrows	1	2	3	4	5
15.	My family really tries to help me	1	2	3	4	5
16.	I get the emotional help and support I need from my family	1	2	3	4	5
17.	I have a special person who is a real source of comfort to me.	1	2	3	4	5
18.	My friends really try to help me	1	2	3	4	5
19.	I can count on my friends when things go wrong	1	2	3	4	5
20.	I can talk about my problems with my family.	1	2	3	4	5
21.	I have friends with whom I can share my joys and sorrows	1	2	3	4	5
22.	There is a special person in my life who cares about my feelings	1	2	3	4	5
23.	My family is willing to help me make decisions	1	2	3	4	5
24.	I can talk about my problems with my friends	1	2	3	4	5

Section G: Future Planning Behavior of the Entrepreneur

No	Do you have plans to:	Possible answers		
		I have no plans.	I have started planning.	I have detailed plans.
A	Collect data on suppliers, customers, or competitors?	1	2	3
B	Acquire additional capital for your company?	1	2	3
C	Improve your company's marketing efforts, for example, with a promotion or advertising?	1	2	3
D	Visit one of your competitors to become familiar with the products offered?	1	2	3
E	Take out time every week to plan activities for the week?	1	2	3

Section H: Direct business risks from instability

Over the last year:	Yes	No
1. Has your business experienced an unanticipated drop in business results (sales/customers/revenue/profits) of more than 30% at any point during that period?		
2. Have you had trouble securing financing?		
3. Have you needed to go to a family member for financial support?		
4. Have you had trouble repaying a loan?		

1. On a scale of 0-5, please rate how much were your business results affected due to violence and political instability?

	Entirely	Considerably	More than half	Less than half	Slightly affected	Not affected at all
Sales	5	4	3	2	1	0
Customer flow	5	4	3	2	1	0
Inventory	5	4	3	2	1	0
Profit	5	4	3	2	1	0
Machinery and other fixed assets	5	4	3	2	1	0
Availability of financing	5	4	3	2	1	0
Ability to pay off loans	5	4	3	2	1	0

*Section I: Brief COPE-adapted for PM+ for entrepreneurs*

These items deal with ways entrepreneurs have been coping with the stress/problems in their lives while doing business in adverse circumstances of KPK and FATA. These items ask what you've been doing to cope with these problems. Different people deal with problems in different ways, but we are interested in how you've tried to deal with these. Each item says something about a particular way of coping. We want to know to what extent you've been doing what the item says. Don't answer on the basis of whether it seems to be working or not—just whether or not you're doing it. Try to rate each item separately in your mind from the others. Make your answers as true FOR YOU as you can.

**Use these response choices.**

- 1=I haven't been doing this at all
- 2=I've been doing this a little bit
- 3=I've been doing this a medium amount
- 4=I've been doing this a lot

No.	Items	I haven't been doing this at all	I've been doing this a little bit	I've been doing this a medium amount	I've been doing this a lot
1.	I've been concentrating my efforts on doing something about the situation I'm in (Get Going, Keep Doing, Active coping)	1	2	3	4
2.	I've been getting emotional support from others (Strengthening social support, Emotional support)	1	2	3	4
3.	I've been taking action to try to make the situation better (Get Going, Keep Doing, Active coping)	1	2	3	4
4.	I've been getting help and advice from other people (Strengthening social support, Instrumental support)	1	2	3	4
5.	I've been trying to see it in a different light, to make it seem more positive (Managing problems, Positive reframing)	1	2	3	4
6.	I've been trying to come up with a strategy about what to do (Managing problems, Planning)	1	2	3	4
7.	I've been getting comfort and understanding from someone (Strengthening social support, Emotional support)	1	2	3	4
8.	I've been looking for something good in what is happening (Managing Problems, Positive reframing)	1	2	3	4
9.	I've been trying to find comfort in my religion or spiritual beliefs (Stress management, Religion)	1	2	3	4
10.	I've been trying to get advice or help from other people about what to do (Strengthening social support, Instrumental support)	1	2	3	4
11.	I've been learning to live with it (Managing Problems, Acceptance)	1	2	3	4
12.	I've been thinking hard about what steps to take (Managing Problems, Planning)	1	2	3	4
13.	I've been praying or meditating (Stress management, Religion)	1	2	3	4

*Section J: Business behaviors related to networking*

Sr. No	Over the last three months...	Yes	No
1	Have you discussed business ideas, new techniques or suppliers (if applicable) with other entrepreneurs?		
2	Have you made connections with new potential customers, markets or other entrepreneurs (not considering any activities related to the grant you receive by the WB)?		
3	Have you received money, new customers, or financial support from other entrepreneurs in your network?		
4	Have you shared tools, inputs, equipment or employees with other entrepreneurs in your networks?		

*Section K: Trust*

No		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		1	2	3	4	5
1	In this town, one must be alert or someone is likely to take advantage of you.	1	2	3	4	5
2	In this town most people try to be helpful.	1	2	3	4	5
3	In this town most people can be trusted.	1	2	3	4	5

*Section L: Counter productive work behaviors*

No		Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
		1	2	3	4	5
1	Over the past three months, I have been late on a bill payment or transaction and such that it caused problems at work.	1	2	3	4	5
2	Over the past three months, I have purposively stayed at home such that it caused problems at work.	1	2	3	4	5
3	Over the past three months, I have complained about insignificant things at work or had anger outbursts such that it caused problems at work.	1	2	3	4	5
4	Over the past three months, I have considered quitting my business.	1	2	3	4	5

*Section M: Work-Life Balance Questionnaire*

No.	Items	Always	Often	Sometimes	Rarely	Never
1.	Do you normally work more than 6 days in a week?	5	4	3	2	1
2.	Do you normally work more than 12 hours in a day?	5	4	3	2	1
3.	Do you feel you are not able to balance your work life?	5	4	3	2	1
4.	How often do you think or worry about work (when you are not actually at work)?	5	4	3	2	1
5.	Do you find yourself unable to spend enough time with your family?	5	4	3	2	1
6.	Do you ever miss out any quality time with your family or your friends because of pressure of work?	5	4	3	2	1
7.	Do you ever feel tired or depressed because of work?	5	4	3	2	1
8.	Are you not able to get time for working out?	5	4	3	2	1

# Appendix 4: Effects of Adversity on SME Entrepreneurs' Businesses

## Effects of Adversity on SME Entrepreneur' Businesses

The effects of business adversity were assessed using a specially designed questionnaire. The questions assessed the effects of adversity on key business indicators (that is, sales, customers, profits, machinery, fixed assets, debits), the entrepreneurs' ability to secure finance, repay loans, and seek financial help from family and friends.

The analysis of the data indicated that a total of 47 percent [95/202] of the beneficiaries faced more than a 30 percent drop in sales in the last year. This indicates that almost half of the beneficiaries' businesses were affected by adversities in KPK and FATA — and that these beneficiaries are still trying to cope with these challenges. Moreover, more than half of the beneficiaries, 63 percent [125/201], were facing financial problems. Sixty-three percent (63.4) of the intervention group and 61 percent (61.0) of the control group participants had limited or no amount of funding available for their businesses. This is indicative of the financial struggles of the entrepreneurs working in the FCV settings of KPK and FATA.

The evidence helped to re-confirm that the on-going conflict and internal displacement had affected almost half of the sample. Thus, although peace has returned to the region, the situation remains fragile.

To compare the effect of adversity on businesses of SME entrepreneurs across both groups, chi-square analysis was conducted. The P-value indicated that the businesses of SMEs entrepreneurs in both groups were equally affected by adversity, and there was no statistically significant difference between the two groups. (For scores, please see table 13).

**Table 23.** Perceived Effects of Adversity on Businesses of SME Entrepreneurs

Variables	N	Treatment (%)	N	Control (%)	p-value
<b>Unanticipated drop in business results</b>	102	48.0%	100	46.0%	0.7800
<b>Trouble securing finance</b>	101	63.4%	100	61.0%	0.7721
<b>Trouble repaying a loan</b>	77	54.5%	77	37.7%	0.0520*
<b>Needed financial support from family member</b>	101	54.5%	98	52.0%	0.7771
<b>Effect of adversity on:</b>					
<b>Sales</b>	<b>101</b>		<b>96</b>		<b>0.2349</b>
Not effected		40.6%		53.1%	
Slightly effected		14.9%		12.5%	
Less than half		19.8%		14.6%	
More than half		20.8%		12.5%	
Considerably		4.0%		7.3%	
<b>Customers</b>	<b>101</b>		<b>96</b>		<b>0.6229</b>
Not effected		50.5%		53.1%	
Slightly effected		13.9%		16.7%	
Less than half		19.8%		12.5%	
More than half		12.9%		11.5%	
Considerably		3.0%		5.2%	
Entirely		0%		1.0%	
<b>Business profit</b>	<b>101</b>		<b>100</b>		<b>0.8787</b>
Not effected		39.6%		37.0%	
Slightly effected		17.8%		22.0%	
Less than half		22.8%		17.0%	
More than half		12.9%		16.0%	
Considerably		5.9%		7.0%	
Entirely		1.0%		1.0%	
<b>Business assets</b>	<b>101</b>		<b>99</b>		<b>0.2882</b>
Not effected		52.5%		55.6%	
Slightly effected		12.9%		13.1%	
Less than half		16.8%		12.1%	
More than half		14.9%		11.1%	
Considerably		2.0%		8.1%	
Entirely		1.0%		0.0%	

**Table 23.** Perceived Effects of Adversity on Businesses of SME Entrepreneurs, Cont.

Variables	N	Treatment (%)	N	Control (%)	p-value
<b>Business finance</b>	<b>101</b>		<b>100</b>		<b>0.2738</b>
Not effected		45.5%		41.0%	
Slightly effected		19.8%		15.0%	
Less than half		17.8%		18.0%	
More than half		9.9%		12.0%	
Considerably		6.9%		9.0%	
Entirely		0.0%		5.0%	
<b>Ability to pay off loans</b>	<b>76</b>		<b>76</b>		<b>0.3205</b>
Not effected		40.8%		56.6%	
Slightly effected		14.5%		11.8%	
Less than half		18.4%		13.2%	
More than half		15.8%		6.6%	
Considerably		7.9%		9.2%	
Entirely		2.6%		2.6%	

Note: P-values in table above indicate that the difference between the two groups. \*\*\*, \*\*, and \* indicate significance at 1, 5, and 10 percent levels respectively.

# Appendix 5: Competency Assessment of Trainers

Competency assessment checklist has indicator based on the skills and steps necessary to complete each PM+ for entrepreneurs' workshop. Each indicator is rated on a scale from 1 to 4

4= excellent

3= good

2= adequate

1= poor/not done

Scores range from 1.00 to 4.00. '1' represents inability to complete any skills with competency. '4' represents ideal competency in all domains. The score is calculated as the

$$\frac{\text{Sum of all items answered}}{\text{Number of applicable items}} = \text{Mean item Score}$$

For example, if a coach received a sum of 40 from 18 items that were scored (i.e., 2 items

$$\frac{40 (\text{sum of score on items rated})}{18 (\text{number of items rated})} = 2.22 (\text{Mean Score})$$

were "not applicable"), then the mean score would be 2.22.

A mean score of 2.5 indicates satisfactory quality of the program implementation/training quality. For the competency assessment during role plays at the end of workshop, only core skills related to each PM+ strategy were focused (Saraf, Rahman, Jamison, Hamdani, and others, 2018).

Indicator	Categories	f(%)
Training venue	Very Good	11(80)
	Adequate	3 (20)
No. of participants	Adequate	14(100)
Length of training	Adequate	14(100)
Quality of training	Very Good	11 (80)
	Adequate	3 (20)
Training helped in understanding PM+E	Very helpful	14 (100)
Overall content of training	Good	14 (100)
Content of PM+E	Fair	6 (40)
	Good	8(60)
Group activities & role plays	Fair	3 (20)
	Good	11 (80)
Presentation of materials by trainers	Fair	3 (20)
	Good	11 (80)
Facilitation of activities by trainers	Fair	3 (20)
	Good	11 (80)
Trainer actively involved participants in learning process	Agree	3 (20)
	Strongly agree	11(80)
Trainer clearly explained concepts	Agree	6(40)
	Strongly agree	8(60)
Trainee feel confident to deliver PM+E workshops	Agree	3(20)
	Strongly agree	11 ( 80)
Trainee feel motivated to deliver workshops	Somewhat	3(20)
	Extremely	11(80)
Relevance of this training to entrepreneurs	Very	3 (20)
	Extremely	11(80)
Potential effectiveness of this training for entrepreneurs in KPK/FATA	Very	6 (40)
	Extremely	8 (60)

# Appendix 6: Attrition Analysis

A simple comparison of attrition between the treatment and control group participants suggest that there were no significant differences in the rates of attrition between the two groups, that is, being in the treatment group did not significantly increase or decrease the likelihood of attrition in subsequent rounds.

**Table 24.** Comparison of Attrition

Variables	(1) 5 weeks	(2) 3 months
<b>Treatment</b>	-0.00949	-0.00971
	[0.0418]	[0.0455]
<b>Constant</b>	0.120***	0.145***
	[0.0296]	[0.0323]
<b>Observations</b>	235	235
<b>Adjusted R-squared</b>	-0.004	-0.004

*Standard errors in brackets*

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

Analysis of differential attrition (which assesses if attriters in the treatment group have different baseline characteristics compared to attriters in the control group) show that attriters in both groups are similar across key demographic variables: gender, education, ERKF funding round, household income (50,000 PKR or above), age, and number of dependents. The exceptions are marital status (i.e. whether married or not) and household income at the 5-week mark. Attriters in the treatment group were less likely to be married (difference of 38% percentage points;  $p=0.0087$ ) and had much higher household income relative to those in the control group. Similarly, non-attriters in the treatment group had lower income relative to those in the control group. However, all difference across the two groups becomes statistically insignificant at the 3 months mark.

**Table 25.** Comparison of Attrition, Underlying Values

Variables	Attrition = 1		Attrition = 0	
	(1) 5 weeks	(2) 3 months	(3) 5 weeks	(4) 3 months
<b>ERKF Round</b>	-0.1648	0.2096	0.0561	-0.0026
	[0.3219]	[0.2400]	[0.4144]	[0.9703]
<b>Male</b>	-0.0549	0.0662	0.0284	0.0090
	[0.7562]	[0.5238]	[0.1831]	[0.7575]
<b>Education</b>	0.2418	-0.1213	0.5809	0.6703
	[0.8779]	[0.9380]	[0.3043]	[0.2394]
<b>Married</b>	0.3846***	0.0074	-0.0211	0.0276
	[0.0087]	[0.9504]	[0.6082]	[0.5222]
<b>Household Income (PKR)</b>	-80.719*	-4,667	28,408*	18,923
	[0.0788]	[0.9347]	[0.0986]	[0.2511]
<b>Age</b>	4.4560	2.9001	0.2908	0.4213
	[0.2541]	[0.3958]	[0.8458]	[0.7825]
<b>No. of Dependents</b>	1.1282	3.2667	0.9970	0.6212
	[0.6503]	[0.2114]	[0.4501]	[0.6077]

Columns show difference in means between treatment and control group  
p-values in brackets

\*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

# Appendix 7: Interview Guide for Beneficiaries' Feedback (Post Program Delivery)

*Purpose: Evaluating what entrepreneurs' think of PM+E and why they chose to engage or not.*

## **Instructions:**

Thank you for participating in PM+E. We would appreciate your feedback, so that we know how to continue improving these trainings in the future. If you have any difficulty understanding the questions below or completing the form, we will be very happy to come and help. Your input is very important to us and we will try to make changes to the program in light of your feedback. Your responses will be kept anonymous and confidential.

1. What has your experience been of the received PM+E' sessions?
 

1. Poor		Very Dissatisfactory
2. Fair		Dissatisfactory
3. Good	OR	Unsure
4. Very good		Satisfactory
5. Excellent		Very Satisfactory
  
2. Was the training useful to your enterprise/yourself? If so, how? If not, why not?
3. What could have been improved about the trainings?
4. Kindly enumerate the reason(s) for your engagement with the program.  
(For entrepreneurs who did not complete the PM+E program)
  - 4.a. Kindly enumerate your main reason(s) for disengagement with the PM+E program?
  
5. What did you enjoy/dislike about PM+E?
  - 5a. What was your favorite activity that we conducted in these training?

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- 5b. What was your least favorite (or most disliked) activity that we conducted in these training?
6. What improvements would you suggest to PM+E?
  7. What from these trainings will you use in your work?
  8. Was there anything about these activities that you didn't understand or would like to know more about?
  9. What are the differences between PM+E and other coaching/training programs that you have ever engaged in?
  10. Would you recommend this intervention to other SMEs entrepreneurs in KPK/FATA?  
1) Yes                      2) No                      3) Don't Know
  11. Any other comments/thoughts that you would like to share with us?
  12. What is your opinion about reminder messages on WhatsApp/SMS?
    - a. What did you like the most in these messages? i. Pictures ii. Text
    - b. What could be improved in these messages?

# Appendix 8: Beneficiaries' Feedback (Facilitators and Barriers)

**Table 26.** Beneficiary Feedback (by Question)

Themes	Examples/codes
1. Experience of training	
IDI-C-01	Training helps us.it has been 6 months that markets rates are high and the customers are low. The circle strategy opens our mind and help us better cope our situations.
IDI-C-02	MashaALLAH we have learnt a lot. We came to know that how can we release our tensions and organize our business. The homework and the exercises helped us to organize our business.
IDI-C-03	I have a good experience. All the strategies and how they can be done teaches us to fight with our problems. Whole training is useful for us. We have not done our 100% according to the training but we are trying to do so. The way they guide us taught us a lot. First time in my life I have listened about my benefits. I don't think so that anything is left in this but if you add more it will helps us more.
IDI-ND-04	It was all good. Teacher was so good
IDI-C-05	It was so good training .I didn't know the things earlier but now I am getting it.
IDI-NC-06	It was good experience. You know the most important thing is to give your business time. I came there for three times I learned things which I really don't know.
IDI-NC-07	I like it. Helps us in tension drop. Training will help us.
IDI-NC-08	It was a good experience. I have only attended one session. We should keep courage.
IDI-ND-09	It was a good experience. It is too hard to sit on one place but it gives us the platform to know each other.
IDI-C-10	I have told you earlier that this training was overall so good eradicate the unrest.
2. Training Usefulness	
IDI-C-01	Now we can think about alternative solutions of our problems. Now we know how to get over our problems. We are surrounded by many problems but now after the training I don't fell the burden on my head and with the help of exercise I feel very relaxed.
IDI-C-02	We are stable in our business now means we are relaxed now. We were doing business but we were always stressed, sleep deprived and irritated. Now all the things are settled down. Now I have organized my things, my schedule and the payments. I know how to distribute task to employees due to this training. Please organize your training program on a one particular place so everyone can join you easily.
IDI-C-03	It was very useful. I feel very motivated to take more risks. We were very scared to take the risks earlier but now we can think of getting out of our comfort zone. Exercise also works. I practiced twice day.
IDI-NC-04	We were encouraged. There are always ups and down in the business but now we are able to fight difficult situation rather than running away from them. We can express our feelings more easily now, I think this is a personal benefit.
IDI-C-05	It was useful. There were problems in our business but the trainee told us to calm down and behave well. I used to get angry on small things but now I know how to get over it and feel relaxed. They told us to behave well with the customers and have some patience, it comes into my mind while dealing with the customers.

**Table 26.** Beneficiary Feedback (by Question), Cont.

Themes	Examples/codes
IDI-NC-06	Now I can think of my ways to get over my problems and follow the rules. When the person is relaxed he can think of many useful ways but when he is stressed out the right things are becoming wrong.
IDI-NC-07	It was useful and it drops down our tensions related to our business. It relaxes our mind so we can behave well with our customers.
IDI-C-09	I find the circle strategy very useful. Like the cricketer have to pay his full attention to the ball. If he fails to give his full attention he got out. So in this way we have to give our 100% and keep an eye on everything. While in the circle we can do all.
<b>3. Suggestions for improvement</b>	
IDI-C-01	In my opinion, this training is very effective but in my area most of the people do not understand urdu, so it will be great, if you deliver this training in Pushto.
IDI-C-02	I am thinking you should add something related to religion, because most of the people here are religious, as you know when you were talking to them (referring to breathing exercise, they were asking and relating it to religion).
IDI-C-03	I think, the PM+ coach should be a person who had great experience in business himself. Like, in cricket, the coach is a person who had great experience in cricket.
IDI-NC-04	I have a cloth house, the trainer should be someone who knows about that business...it was good. But it can be improved by giving us according to our business.
IDI-C-05	I think Sunday or Friday is feasible (for workshops), on other days we have business to see and so I think weekends are appropriate. Markets are closed on weekends, we can easily attend workshops.
IDI-NC-06	I would want that you provide financial assistance as well, people would take more interest and they will get financial benefits too.
IDI-NC-08	The training program was good but it will be more beneficial for those who have just started his business.
IDI-C-09	The training can be more helpful, if it allows us to meet with the people who are expert and successful in this field.
IDI-C-10	Overall the environment and selection of location was good. But I think technology should be involved as well. Use PowerPoint presentations and projectors for training. Advertise it through Whatsapp and social media, you will involve more people this way and will receive a lot of feedback.
IDI-C-10	In my opinion, give this training to the university students, This training should be the first step for business students (MBA) before passing out.
<b>4. Reasons for engagement</b>	
IDI-C-01	I realized from the very start of this training, that the things you people told us i did not know about them and it opens up my mind.
IDI-C-02	The reason for attending the sessions regularly was that It was effective, In those sessions; we used to discuss the issues, problems which we were having in our routine. We came to know how to systematically organize our business and how to take it to new heights. So we learned how to organize things, if you are organized, you get mental satisfaction and it is easier to earn money then.
IDI-C-02	At first hand, we were afraid that what sort of training it will be, what kind of people will come but the coach/trainers were educated, and it was conducted in an open and friendly environment. We would discuss and problem solve around the challenges, and problems which we were having in our personal and business life .. and the level of encouragement from coaches was incredible.
IDI-C-03	The reason for training was to learn from you all. ....people learnt not only from training but also by talking to other people.
IDI-C-04	They talked very well with us, and the training was for us, for our future.

**Table 26.** Beneficiary Feedback (by Question), Cont.

Themes	Examples/codes
IDI-C-09	I thought if they are training, there must be a purpose behind it, and that is a reason enough to attend it. Learn and let others learn.
5. Reasons for disengagement	
IDI-NC-04	I was busy at my shop. There was a lot of rush of customers so I was not able to attend the sessions. Although I tried, I was helpless.
IDI-NC-06	I was alone at my village. I often have to go to attend marriages and deaths.
IDI-NC-07	I was at my cousin's death that's why I could not come.
IDI-NC-08	I was at hospital one day. Other day I was at death's cousin. I think one day it was raining here so I couldn't come.
6. Like/dislike	
IDI-C-01	I like the most about this training was the technique you told us about how to solve our problems. But I like all the techniques, all were very helpful nothing was useless.
IDI-C-03	Everything was informative, but the techniques of "draw a circle and see what are the things outside of your control and what are the things in our control" was very informative and interesting
IDI-NC-06	The technique you told us about there is something which is in our control and some things are not. It helps me and I have understand it very well.
IDI-NC-08	I liked the environment where we all talked about our problems like friends. There were business men not only from Nowshera but also from Mardan.
7. Implications of the training	
IDI-C-01	The main benefit from the training is now I can think of the solution of problems and I don't feel burden on my head now. I feel relaxed after the exercise you told us.
IDI-C-02	I do the exercise daily.
IDI-C-03	We have to leave the circle sometimes, we have started this in routine, and I do the exercise twice a day.
IDI-C-05	I like the breathing exercise; all the components were good and useful. I can talk to my neighbor now to get the situation better.
IDI-C-09	I do the breathing exercise daily.
IDI-C-10	Whatever I have listened I try to follow all the things whenever I am in tension.
8. Would you recommend for others in KPK and FATA	
IDI-C-01	This training will be helpful for everyone...it opens up our mind and we started thinking beyond our limits (comfort zone).
IDI-C-03	Yes, definitely, it will be good, it will encourage them, and this could be very beneficial for them.
IDI-NC-04	It is for everyone, we were thinking of leaving the business but this training help us to think about the alternative solutions it helps us in growth of business.
IDI-C-05	Yes it would have an advantage for them.
IDI-NC-07	Yes, this training should be for them they will get benefit from this.
IDI-C-09	It is important. I have learnt from this training. Besides that, This training is for free so everyone should attend it.
9. Whatsapp and messages	
IDI-C-01	This training should be for everyone, it opens up my mind. We had received messages on whatsapp which are very good and useful. I cannot read those messages but when I go to home in the evening my wife read those for me. Messages are useful.

**Table 26.** Beneficiary Feedback (by Question), Cont.

Themes	Examples/codes
IDI-C-03	Yes, I have received whatsapp messages. I feel good, those reminds me that what we had talked in training. That is very true everything, I understand everything.
IDI-NC-04	Things which were incomplete there we can complete by messages. We repeat again and again through messages to remember and to understand well.
IDI-C-05	I often receive massages on phone and messages are pretty good.
IDI-NC-06	Yes, I had received messages which are very good. It brings comfort in Life.
IDI-NC-07	I received calls instead of messages.
IDI-NC-08	Yes I am using whatsapp. Difference is that I do not know how to use, I had read those messages. Those messages were very good; I think those messages were the part of training. It was not a big job to do so I read messages in two minutes.
IDI-C-09	I cannot reply to messages but when I read the messages I got smile on my face.

Source: World Bank Group (2018).

# Bibliography

1. Ahmad, S.Z. and F.A.A. Salim. 2009. "Sources of stress and the coping mechanism for Malaysian entrepreneurs." *African Journal of Business Management* 3(6), 311-316.
2. Ahmad, S., S. Hussain, F. Akhtar, and F.S. Shah. 2018. "Urdu translation and validation of PHQ-9, a reliable identification, severity and treatment outcome tool for depression." *Journal of Pakistan Medical Association* 68(8): 1166-1170.
3. Akande, A. 1994. "Coping with entrepreneurial stress: evidence from Nigeria." *Journal of Small Business Management* 32: 83-87
4. Andersson, P. 2008. "Happiness and health: Well-being among the self-employed." *Journal of Socio-Economics* 37(1): 213-236.
5. Avey, J., F. Luthans, R. Smith, and N. Palmer (2010). "Impact of positive psychological capital on employee well-being over time." *Management Department Publications* 55.
6. Bandura, A. 1997. *Self-Efficacy: The Exercise of Control*. New York: W. H. Freeman.
7. Blattman, C., J.C. Jamison, and M. Sheridan. 2017. "Reducing Crime and Violence: Experimental Evidence from Cognitive Behavioral Therapy in Liberia." *American Economic Review*, 107(4): 1165-1206.
8. Bloom, N., B. Eifert, A. Mahajan, D. McKenzie, and J. Roberts. 2012. "Does Management Matter? Evidence from India." *The Quarterly Journal of Economics* 128(1): 1-51. <http://doi.org/10.1093/qje/qjs044>
9. Blonk, R.W.B., V. Brenninkmeijer, S. E. Lagerveld, and I. L.D. Houtman. 2006. "Return to work: A comparison of two cognitive behavioural interventions in cases of work-related psychological complaints among the self-employed." *Work & Stress* 20(2): 129-144.
10. Boyd, D.P. and D.E. Gumpert. 1983. "Coping with entrepreneurial stress." *Harvard Business Review* 61: 44-64.
11. Boye, M. W., and J.W. Jones. 1997. "Organizational culture and employee counter-productivity." *Antisocial Behavior in Organizations*, edited by R.A. Giacalone and J. Greenberg. Thousand Oaks, CA: Sage. 172-184.
12. Buttner, E.H. 1992. "Entrepreneurial stress: is it hazardous to your health?" *Managerial Issues* 4: 223-240.
13. Brummelhuis, L., J. M. Haar, and M.A. Roche. 2014. "Does family life help to be a better leader? A closer look at crossover processes from leaders to followers." *Personnel Psychology* 67 (4): 917-949.

14. Campos, F., M. Frese, M. Goldstein, L. Iacovone, H. Johnson, D. McKenzie, and M. Mensmann. 2017. "Teaching personal initiative beats traditional training in boosting small business in West Africa." *Science*, 357:1287–1290.
15. Carver, C. S. and M. Scheier. 2003. "Optimism." In *Positive Psychological Assessment: A Handbook of Models and Measures*, edited by S.J. Lopez and C.R. Snyder. Washington D. C.: American Psychological Association.
16. Chilcot, J., J.L. Hudson, R. Moss-Morris, A. Carroll, D. Game, A. Simpson, and M. Hotopf. (2018). "Screening for psychological distress using the Patient Health Questionnaire Anxiety and Depression Scale (PHQ-ADS): Initial validation of structural validity in dialysis patients." *Gen Hosp Psychiatry*, 50: 15-19.
17. Craigie, M. A., and P. Nathan. 2009. "A nonrandomized effectiveness comparison of broadspectrum group CBT to individual CBT for depressed outpatients in a community mental health setting." *Behavior Therapy* 40: 302–314.
18. Cocker, F., A. Martin, J. Scott, A. Venn, and K. Sanderson. 2013. "Psychological distress and related work attendance among small-to-medium enterprise owner/managers: Literature review and research agenda." *International Journal of Mental Health Promotion* 10: 5062–5082.
19. Dewe P.J. and D.E. Guest. 1990. "Methods of coping with stress at work: a conceptual analysis and empirical study of measurement issues." *Journal of Organizational Behavior* 11(2): 135–150.
20. Fava, G. A., C. Ruini, C. Rafanelli, L. Finos, S. Conti, and S. Grandi. 2004. "Six-year outcome of cognitive behavior therapy for prevention of recurrent depression." *American Journal of Psychiatry* 161: 1872 –1876.
21. Fernet, C., O. Torres, S. Austin, and J. St-Pierre. 2016. "The psychological costs of owning and managing an SME: Linking job stressors, occupational loneliness, entrepreneurial orientation, and burnout." *Burnout Research* 3: 45–53.
22. Fox, S., and P.E. Spector. 1999. "A model of work frustration—aggression." *Journal of Organizational Behavior* 20: 915–931.
23. Fox, S., P.E. Spector, and D. Miles. 2001. "Counterproductive work behavior (CWB) in response to job stressors and organizational justice: Some mediator and moderator tests for autonomy and emotions." *Journal of Vocational Behavior* 59: 291–309.
24. Frese, M., M. M. Gielnik, and M. Mensmann. 2016. "Psychological Training for Entrepreneurs to Take Action: Contributing to Poverty Reduction in Developing Countries." *Current Directions in Psychological Science*, 25(3): 196–202.
25. Gholizadeh, L., S. Khan, F. Vahedi, and P. Davidson. 2017. "Sensitivity and specificity of Urdu version of the PHQ-9 to screen depression in patients with coronary artery disease." *Contemporary Nurse* 53: 1-18.

26. Grant, S. and K. Ferris. 2012. "Identifying sources of occupational stress in entrepreneurs for measurement" *International Journal of Entrepreneurial Venturing*.
27. Gupta, S.K. 2011. "Intention-to-treat concept: A review." *Perspectives in Clinical Research* 2(3): 109–112.
28. Hall, K. and L.K. Savery. 1986. "Tight rein, more stress." *Harvard Business Review* 23(10): 1162–1164.
29. Edwards J.R. 1992. "A cybernetic theory of stress, coping and well-being in organisations." *Academy of Management Review* 17(2): 238–274.
30. Harris, J.A., R. Saltstone, and M. Fraboni. 1999. "An Evaluation of the job stress questionnaire with a sample of entrepreneurs." *Journal of Business Psychology* 13(3): 447–455.
31. Harms, P.D., M. Crede, M. Tynan, M. Leon, and W. Jeung. 2017. "Leadership and stress: A metanalytic review." *The Leadership Quarterly* 28 (1): 178–194.
32. Heifetz, R.A., A. Grashow, and M. Linsky. 2009. "The practice of adaptive leadership: Tools and tactics for changing your organization and the world." *Harvard Business Press*.
33. Heller, S. B., A. K. Shah, J. Guryan, J. Ludwig, S. Mullainathan, H. A. Pollack. 2017. "Thinking, Fast and Slow? Some Field Experiments to Reduce Crime and Dropout in Chicago." *Quarterly Journal of Economics* 132(1): 1–54.
34. Husain, N., et al. 2007. "Life stress and depression in a tribal area of Pakistan." *The British Journal of Psychiatry* 190(1): 36-41.
35. Jamal, M. 1997. "Job Stress, Satisfaction, and Mental Health: An Empirical Examination of Self-Employed and Non-Self-Employed Canadians." *Journal of Small Business Management* 35(4): 48-57
36. Jamal, M. and J. Badawi. 1995. "Job Stress and Quality of Working Life of Self-Employed Immigrants: A Study in Workforce Diversity." *Journal of Small Business & Entrepreneurship* 12: 55–63
37. Johnson, D. 1995. "Stress and stress management among owner-managers of small and medium-sized enterprises." *Employee Councelling Today* 7(5): 14-19.
38. Johnson D. 1999. "Stress among graduates working in the SME sector." *Journal of Management Psychology* 6(5): 17–21.
39. Kariv, D. 2008. "The Relationship between Stress and Business Performance among Men and Women Entrepreneurs." *Journal of Small Business & Entrepreneurship* 21(4): 449–476.
40. Kessler, D., G. Lewis, S. Kaur, N. Wiles, M. King, S. Weich, D. J. Sharp, R. Araya, S. Hollinghurst, and T.K. Peters. 2009. "Therapist-delivered internet psychotherapy for depression in primary care: A randomised controlled trial." *The Lancet* 374: 628–634.

41. Khan, M., S.U. Hamdani, A. Chiumento, K. Dawson, R. A. Bryant, M. Sijbrandij, H. Nazir, P. Akhtar, A. Masood, D. Wang, E. Wang, I. Uddin, M. V. Ommeren, and A. Rahman. 2017. "Evaluating feasibility and acceptability of a group WHO trans-diagnostic intervention for women with common mental disorders in rural Pakistan: A cluster randomised controlled feasibility trial." *Epidemiology and Psychiatric Sciences*:1–11.
42. Kirkcaldy, B., and A. Furnham. 1999. "Stress coping styles among German managers." *Journal of Workplace Learning* 11(1): 22-26.
43. Kroenke, K., J. Wu, Z. Yu, M.J. Bair, J. Kean, T. Stump, and P.O. Monahan. 2016. "Patient Health Questionnaire Anxiety and Depression Scale: Initial Validation in Three Clinical Trials." *Psychosomatic Medicine* 78(6): 716-727.
44. Kroenke, K., R.L. Spitzer, J.B. Williams. 2001. "The PHQ-9: validity of a brief depression severity measure." *Journal of General Internal Medicine* 16(9): 606-613.
45. The Lancet. (October, 2018). *The Lancet Commission on global mental health and sustainable development. Lancet Commission*. Retrieved from <https://www.thelancet.com/commissions/global-mental-health>.
46. Lewin-Epstein, N. and E. Yuchtman-Yaar. 1991. "Health risks of self-employment." *Work and Occupations* 18: 291–312.
47. Luthans, F., et al. 2007. "Positive psychological capital: Measurement and relationship with performance and satisfaction." *Personnel Psychology* 60(3): 541-572.
48. Luthans, F., C. M. Youssef, and B. J. Avolio. 2007. "Psychological Capital: Developing the Human Competitive Edge". Oxford, England: Oxford University Press.
49. Mataix, D., L. Fernandez de la Cruz, K. Isomura, M. Anson, C. Turner, B. Monzani, J. Cadman, L. Bowyer, I. Heyman, D. Veale, G. Krebs. 2015. "A Pilot Randomized Controlled Trial of Cognitive-Behavioral Therapy for Adolescents with Body Dysmorphic Disorder." *Journal of the American Academy of Child and Adolescent Psychiatry* 54(11): 895–904
50. Martin, B. "In-Depth: Cognitive Behavioral Therapy". *Psych Central*. Retrieved December 4, 2017, from <https://psychcentral.com/lib/in-depth-cognitive-behavioral-therapy/>
51. McGuire, J.T. and M. M. Botvinick. 2010 "Prefrontal cortex, cognitive control, and the registration of decision costs." *PNAS*, 107(17): 7922–7926.
52. Meglino, B.M. 1977. "The Stress-Performance Controversy." *MSU Business Topics* 25(4): 53–59.

53. Miles, D. E., W.C. Borman, P.E. Spector, and S. Fox. 2002. "Building an integrative model of extra role work behaviors: A comparison of counterproductive work behavior with organizational citizenship behavior." *International Journal of Selection and Assessment* 10(1/2): 51–57
54. Monsell, S. 2003. "Task switching." *Trends in Cognitive Sciences* 7(3):134–140.
55. Mohr, D. C., S. L. Hart, L. Julian, C. Catledge, L. Honos-Webb, L. Vella, and E. T. Tasch. 2005. "Telephone-administered psychotherapy for depression." *Archives of General Psychiatry* 62:1007–1014.
56. Murray, L.K., and others. 2012. "Dissemination and implementation of evidence based, mental health interventions in post conflict, low resource settings." *Intervention*. Amstelveen, Netherlands. 12(Suppl 1): 94.
57. National Collaborating Centre for Mental Health (UK). 2011. *Common Mental Health Disorders: Identification and Pathways to Care*. Leicester (UK): British Psychological Society; Available from: <https://www.ncbi.nlm.nih.gov/books/NBK92254/>.
58. Organisation for Economic Co-operation and Development (OECD). 2012. "Sick on the Job? Myths and Realities about Mental Health and Work, Mental Health and Work." OECD Publishing. <http://dx.doi.org/10.1787/9789264124523-en>.
59. "Pakistan Census report." 2017. Pakistan Bureau of Statistics. [www.pbs.gov.pk/content/population-census](http://www.pbs.gov.pk/content/population-census)
60. Parasuraman, S., Y. S. Purohit, V. M. Godshalk, N. J. Beutell. 1996. "Work and family variables, entrepreneurial career success and psychological well being." *Journal of Vocational Behavior* 48(3): 275–300.
61. Paten et al. (2018). "The Lancet Commission on global mental health and sustainable development." *The Lancet*.
62. Quick, J. C. 1998. "Introduction to the measurement of stress at work." *Journal of Occupational Health Psychology* 3(4): 291–293.
63. Rahman, A., N. Riaz, K.S. Dawson, S. Usman Hamdani, M. Sijbrandij, F. Minhas, R.A. Bryant, K. Saeed, M. van Ommeren, and S. Farooq. 2016. "Problem Management Plus (PM+): pilot trial of a WHO transdiagnostic psychological intervention in conflict-affected Pakistan." *World Psychiatry*, 2016. 15(2): 182-183.
64. Roberts, S.J., L. L. Scherer, and C.J. Bowyer. 2011. "Job Stress and Incivility: What Role Does Psychological Capital Play?" *Journal of Leadership and Organizational Studies*.
65. Rokach, A. 2014. "Leadership and Loneliness." *International Journal of Leadership and Change* 2(1): 46-59

66. Rythonen, M.H. and T. Strandvik. 2005. "Stress in business relationships." *Journal of Business and Industrial Marketing* 20(1): 12–22.
67. Saraf, P, T. Rahman, M. Gallardo, J. Jamison, and C. Lor. 2018. "Improving mental well-being and productivity of small-medium entrepreneurs in fragile, conflict and violence affected areas: can cognitive behavioral therapy trainings help?" Policy Research working paper; no. WPS 8489. Washington, D.C. : World Bank Group.
68. Saraf, P, A. Rahman, S.U. Hamdani, J. Jamison, D.Wang, M.N.Khan, T. Rahman, and M.Gallardo. 2018. "Interim Results from Administering Psychosocial Revitalization of Entrepreneurs for Optimal Mental Health: A Draft Report". World Bank mimeo (unpublished).
69. Sang L., and L. Seongbae. 2009. "Entrepreneurial orientation and the performance of service business." *Pan-Pacific Business Association* 3(1): 1-13.
70. Sears, L. E., Y. Shi, C.R. Coberley, and J.E. Pope. 2013. "Overall well-being as a predictor of health care, productivity, and retention outcomes in a large employer." *Population Health Management* 16(6): 397-405.
71. Sen, A. 2000. "Development as Freedom." New York: Anchor Books.
72. Sharma, M. and B. Razzaque. 2017. "Research capacity strengthening in South Asia: based on the experience of South Asian Hub for Advocacy, Research and Education on Mental Health (SHARE)." *Global Mental Health*.
73. Snyder, C. R., J. Cheavens, and S.C. Sympson. 1997. "Hope: An individual motive for social commerce." *Group Dynamics: Theory, Research, and Practice*, 1:107–118; and Masten, A. S. 2001. "Ordinary magic: Resilience processes in development." *American Psychologist* 56: 227–238.
74. Steel, Z., et al. 2009. "Association of torture and other potentially traumatic events with mental health outcomes among populations exposed to mass conflict and displacement: a systematic review and meta-analysis." *Jama* 302(5): 537-549.
75. Story, Joana S. P, Carolyn M. Youssef, Fred Luthans, John E. Barbuto, and James Bovaird. 2013. "Contagion Effect of Global Leaders' Positive Psychological Capital on Followers: Does Distance and Quality of Relationship Matter?" *The International Journal of Human Resource Management* 24 (13): 2534-2553.
76. Spears, D. 2011. "Economic Decision-Making in Poverty Depletes Behavioral Control." *The B.E. Journal of Economic Analysis and Policy* 11(1):1–44.
77. Spector, A., G. Charlesworth, M. King, M. Lattimer, S. Sadek, L. Marston, A. Rehill, J. Hoe, A. Qazi, M. Knapp, M. Orrell. 2014. "Cognitive Behavioural therapy (CBT) for anxiety in dementia: A pilot randomized controlled trial." *British Journal of Psychiatry*:1–27

78. Spitzer, R.L., et al. 2006. "A brief measure for assessing generalized anxiety disorder: the GAD-7." *Archives of Internal Medicine* 166(10): 1092-1097.
79. Sy, T., S. Côté, and R. Saavedra. 2005. "The contagious leader: Impact of the leader's mood on the mood of group members, group affective tone, and group processes." *Journal of Applied Psychology* 90: 295–305.
80. Tahir, U. 2016. "Entrepreneurial Stress in SMEs." *Journal of Resource Development and Management* 18.
81. Topp, C.W., et al. 2015. "The WHO-5 Well-Being Index: a systematic review of the literature." *Psychotherapy and Psychosomatics* 84(3): 167-176.
82. Tucker, J.S., R. R. Sinclair, C. D. Mohr, J. L. Thomas, A. D. Salvi, and A. B. Adler. 2009. "Stress and counterproductive work behavior: Multiple relationships between demands, control, and soldier indiscipline over time." *Journal of Occupational Health Psychology* 14 (3): 257–271
83. United Nations Office for the Coordination of Humanitarian Affairs. 2019. "Global Humanitarian Overview." Geneva, Switzerland: United Nations Office for the Coordination of Humanitarian Affairs. <https://interactive.unocha.org/publication/globalhumanitarianoverview/>
84. Vohs, K. D., R. F. Baumeister, B. J. Schmeichel, J. M. Twenge, N. M. Nelson, and D. M. Tice. 2008. "Making choices impairs subsequent self-control: A limited resource account of decision making, self-regulation, and active initiative." *Journal of Personality and Social Psychology* 94: 883– 898.
85. World Bank Group (2018). Internal draft - Improving Psychosocial Performance of SME Entrepreneurs in Pakistan. World Bank mimeo (unpublished).
86. World Bank (2016). Psychosocial support in Fragile and Conflict Affected Settings, <http://www.worldbank.org/en/topic/fragilityconflictviolence/brief/psychosocial-support-in-fragile-and-conflict-affected-settings>
87. World Health Organization. 2017. "Mental Health in the workplace." [http://www.who.int/mental\\_health/in\\_the\\_workplace/en/](http://www.who.int/mental_health/in_the_workplace/en/)
88. Zimet, G.D., et al. 1988 . "The multidimensional scale of perceived social support." *Journal of Personality Assessment* 52(1): 30-41.





