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Mental Health Stigma Among Community Members in Afghanistan – a Cross-Sectional Survey

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Keywords:	depression, psychosis, LMIC/low-income countries, Islamic, conflict
Abstract:	<p>Background</p> <p>Stigma is a barrier to mental healthcare. Understanding context-specific stigma is important in designing mental health interventions.</p> <p>Aim</p> <p>This study explored the nature and patterns of mental health stigma among community members in Afghanistan.</p> <p>Methods</p> <p>Using cross-sectional data (n=718), descriptive and inferential analyses were conducted. Multivariable linear regression identified determinants of stigma, as reflected by: (1) preference for social distance in relation to depression and psychosis, and (2) intended stigmatising behaviours in relation to mental illness.</p> <p>Results</p> <p>In descriptive analyses, stigma toward depression and psychosis, especially regarding work and marriage, was found. The label of "mental illness" was especially stigmatising. Most respondents would disclose a mental health problem to family only. Findings of inferential analyses included: stigma was positively associated with higher socioeconomic status, depression, and belief in dangerousness; and negatively associated with urban location, female gender, familiarity, and belief in a positive prognosis.</p> <p>Conclusions</p> <p>This study provides new insights on stigma, to inform action in Afghanistan, an under-researched context. Further research and actions must prioritise supportiveness at the family level, especially in remote regions, and address cultural issues of the social cost of associating with</p>

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	mental illness. More culturally appropriate, non-stigmatising language surrounding mental illness should be developed.

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Manuscripts

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4 **Mental Health Stigma Among Community Members in Afghanistan – a**
5 **Cross-Sectional Survey**
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Mental Health Stigma Among Community Members in Afghanistan – a Cross-Sectional Survey

Abstract

Background

Stigma is a barrier to mental healthcare. Understanding context-specific stigma is important in designing mental health interventions.

Aim

This study explored the nature and patterns of mental health stigma among community members in Afghanistan.

Methods

Using cross-sectional data (n=718), descriptive and inferential analyses were conducted. Multivariable linear regression identified determinants of stigma, as reflected by: (1) preference for social distance in relation to depression and psychosis, and (2) intended stigmatising behaviours in relation to mental illness.

Results

In descriptive analyses, stigma toward depression and psychosis, especially regarding work and marriage, was found. The label of “mental illness” was especially stigmatising. Most respondents would disclose a mental health problem to family only. Findings of inferential analyses included: stigma was positively associated with higher socioeconomic status, depression, and belief in dangerousness; and negatively associated with urban location, female gender, familiarity, and belief in a positive prognosis.

Conclusions

This study provides new insights on stigma, to inform action in Afghanistan, an under-researched context. Further research and actions must prioritise supportiveness at the family level, especially in remote regions, and address cultural issues of the social cost of associating with mental illness. More culturally appropriate, non-stigmatising language surrounding mental illness should be developed.

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4 Mental disorders significantly add to the burden of disease in low and middle-
5
6 income countries, being the leading cause of disability adjusted life years from non-
7
8 communicable diseases (Mascayano et al., 2015). Afghanistan faces these and added
9
10 challenges. The country has been in conflict for four decades (Ansary, 2012) and was
11
12 ranked 170th of 189 countries in the 2019 Human Development Index (UNDP, 2019).
13
14 These stressors can serve to further compound the burden, with 17% of Afghans
15
16 estimated to experience mental disorder (WHO, 2017). Furthermore, there is a large
17
18 mental health treatment gap in Afghanistan. (Hayward & Babury, 2013).
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23 Stigma is defined as the “situation of the individual who is disqualified from full
24
25 social acceptance due to a deeply discrediting attribute” (Goffman, 1963). In the case of
26
27 mental illness, this discrediting attribute could include, for example, the diagnostic label
28
29 of mental illness, symptomatic behaviour or contact with mental health services. Stigma
30
31 is a global issue (Patel et al., 2014), recognised as the single greatest barrier to
32
33 community-based mental healthcare (WHO, 2001). It contributes to the treatment gap
34
35 by discouraging help-seeking (Shidhaye & Kermode, 2013).
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40 Stigma has been conceptualised as having three components: knowledge,
41
42 attitudes, and behaviour (Thornicroft, et al., 2007). It manifests in many ways
43
44 (Pescosolido & Martin, 2015) – for example, it can be observed at the community level.
45
46 Attitudes to mental illness in the general population can be studied; one approach is to
47
48 assess community members’ preference for social distance from, and intended
49
50 behaviours toward, persons who have a mental illness.
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55 The expression of stigma varies by culture (Yang et al., 2007), and it has been
56
57 underexplored in Afghanistan. Understanding stigma in context is important in the
58
59 design of locally appropriate mental health and anti-stigma interventions. While
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1
2
3 evidence on stigma from low-income settings is emerging (Patel et al., 2014), there is
4
5 little literature from Islamic countries, and Afghanistan is a unique setting. Several
6
7 salient features of the context, relevant to the question of stigma, should be highlighted.
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10
11 First, Afghans are 99.7% Muslim (approximately 84% to 89% Sunni and 10% to
12
13 15% Shia (CIA, 2021), and Afghanistan is known as a particularly conservative Islamic
14
15 nation (Pew Research Center, 2013). Associations between stigma and increased
16
17 religiosity have been found in other (including Islamic) contexts (Abuhammad & Al-
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19 Natour, 2021; Peteet, 2019). Fatalistic beliefs about illness (i.e., it is God's will) are also
20
21 common in Afghanistan (Eggerman & Panter-Brick, 2010).
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27 Second, Afghanistan is known for its honour culture (Baldry et al., 2013; Gibbs
28
29 et al., 2019; Mohammadi, 2011), which is based on the concepts of status, reputation
30
31 and gender-based behaviour codes (Mosquera, 2013; Vandello & Cohen, 2003). In
32
33 honour cultures, social ostracism and loss of reputation in the community can cause
34
35 severe economic difficulty (Allan et al., 2018; Thornicroft, et al., 2009; Trani, et. al.,
36
37 2016). Honour culture has been identified as a potential amplifier of mental health
38
39 stigma (Brown et al., 2014).
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44 Third, Afghan women are generally considered to occupy a lower social status
45
46 than men (Baldry et al., 2013; Manganaro & Alozie, 2011), and are known to face deep
47
48 gender inequalities which have been described as "extreme" and "exceptional", even in
49
50 comparison to the challenges faced by women in other low-income settings (Van
51
52 Mierlo, 2012).
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56 Fourth, Afghanistan is a conflict and post-conflict setting. Afghanistan is a
57
58 collectivist culture with traditionally strong social support networks (Mohammadi,
59
60 2011), which potentially could lessen the impact of stigma. However, conflict is a

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3 disruptor of these social support networks, especially through factors such as forced
4
5 migration and displacement uprooting people from their communities.
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9 Thus, Afghan culture has strengths but also factors that could ostensibly create
10
11 an environment of high mental health stigma, or at least an environment where the
12
13 impact of stigma is felt more acutely. However, without research such as this, the exact
14
15 expression of stigma is largely unknown. Therefore, this study aimed to explore the
16
17 nature and patterns of mental health stigma among community members in Afghanistan.
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19 Specifically, this study examined stigma as reflected in (1) a preference for social
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21 distance in relation to depression and psychosis, and (2) intended stigmatising
22
23 behaviours in relation to mental illness in general.
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28 **Methods**

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31 This study used cross-sectional data to explore mental health stigma among
32
33 community members in Afghanistan. These data were collected through a survey
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35 conducted in 2017 by the International Assistance Mission (IAM; <https://iam-afghanistan.org>), an international non-governmental organisation working in
36
37 Afghanistan since 1966.
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44 ***Sample and Setting***

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47 Survey respondents were residents of Herat city in Herat Province, and Qala-e-
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49 Naw city in Badghis Province, both in western Afghanistan. Herat is the third largest
50
51 city in Afghanistan, and is one of the most economically advanced areas there (Leslie,
52
53 2015). Qala-e-Naw is a small, impoverished city, and Badghis province is
54
55 overwhelmingly rural, with agriculture the primary income source for most people
56
57 (WFP, 2017). Herat is more diverse, with a considerable population of internally
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3 displaced people. 718 community members participated (sufficient sample size for the
4 conducted analyses (Bujang, et al., 2018)). The large sample was intended to provide a
5 broadly representative group of respondents; however, as no data were collected on
6 persons who declined participation, we cannot assess to which extent the sample is
7 representative of the population.
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16 ***Procedure***

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18 For data collection, cities were stratified into areas of relative poverty and
19 wealth. Within each area, a random starting point was chosen and every 15th house on
20 the right side selected for interview. Where no answer occurred, the next house was
21 chosen. Data were collected over 20 days.
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28 All participants gave written consent for their data to be used in research. Ethical
29 approval was obtained from the Government of Afghanistan's Research Ethics
30 Committee in the Ministry of Public Health (ref. 43998), and the Research Ethics
31 Committee of the London School of Hygiene and Tropical Medicine (ref. 19192).
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38 ***Measures***

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41 Data were collected using a survey developed by the PRIME (Programme for
42 Improving Mental Healthcare) research group (PRIME, 2020). The instrument was
43 initially validated in India (De Silva et al., 2016), and subsequently translated into Dari.
44 It included vignettes adapted to be culturally appropriate for Afghanistan, reflecting
45 accurate names, routines, and typical work settings. The full research instrument is
46 available from the authors on request.
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Box 1. Depression and Psychosis Vignettes

Vignette 1 – Depression (“Nasiba”)

Nasiba is a 45-year-old woman living in a village. She has three sons and one daughter. All of them are grown up and married. She lives with her husband and works in the home. Their financial condition is poor and with great difficulty they are able to maintain their house. In the last 2-3 months she started feeling very tired throughout the day and she gradually stopped going to the farm. She couldn't sleep in the night and used to wake up early in the morning feeling very tired. Earlier she used to eat big meals at one time, but now she doesn't feel like eating even half a plate. She doesn't speak to anyone in the house and starts crying sometimes without any reason. She constantly complains of headache and body aches and feels that she is totally useless. Her husband complains that Nasiba has become very lazy and is not interested in any work. She also once told her daughter that she feels that she should end her life by jumping in a well.

Vignette 2 – Psychosis (“Ahmad”)

Ahmad is a 25-year-old person living with his wife and parents in a village. He was a normal person but he has changed over the past 1-2 weeks and his behaviour has become a bizarre. He has become extremely restless, looking frightened, and trying to do unreasonable or dangerous things - starting a fire, smashing objects, tearing clothes, or even attempting to harm people for no reason. Sometimes he behaves as if he is hearing voices that no one else can hear, or seeing things which are not real. He also says that he is receiving orders from invisible powers. Due to all this his family members are frightened and have a difficult time talking to him. Usually this sort of state lasts for days or a couple of weeks after which he either returns to normal, or continues to say strange things and look about strangely. Due to all this, his routine life is badly affected and even his family members are finding it difficult to manage.

Sociodemographic data were collected regarding age, gender, years of education, occupation, marital status, home ownership, land ownership and indebtedness. The latter three indicators were combined into one socioeconomic status variable (scored 0 to 3). Higher scores indicated higher socioeconomic status.

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3 Data on emotional state were collected using the Depression Anxiety and Stress
4 Scale (DASS)-21. Using standard scoring of the scale (Lovibond, 1993), responses
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6 resulted in scores for depression, anxiety and stress, which were categorised as
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8 “normal”, “mild”, “moderate”, “severe”, or “extremely severe”.
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13 14 *(1) Social Distance in Relation to Depression and Psychosis*

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16 These data were collected in response to two vignettes, depicting a person with
17 depression (“Nasiba”) and a person with psychosis (“Ahmad”).
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22 *Social distance* was assessed through five statements on participants’
23 willingness to engage in relationship at differing levels of intimacy with a person
24 similar to the vignette (i.e., be a neighbor, spend time socialising, develop a friendship,
25 work closely with, or have person marry into the family). Responses were scored as
26 “strongly agree” (0), “agree” (1), “don’t know” (2), “disagree” (3), and “strongly
27 disagree” (4), and the items were combined into a “Social Distance Score” ranging from
28 0 to 20. A higher score represented greater preference for social distance.
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38 Participants responded to statements addressing (i) beliefs about etiology (four
39 items), (ii) beliefs about prognosis (two items), (iii) beliefs about a person with the
40 condition (three items), (iv) views on the helpfulness of various treatments (six items),
41 (v) familiarity with the condition (one item), (vi) exposure to media concerning the
42 conditions (two items), and (vii) help-seeking behaviours (two items). The two
43 prognosis items were combined into one item in which a positive response to either
44 question counted as belief in the possibility of recovery. Participants responded to some
45 statements with “yes” or “no” and some statements on a 5-point Likert scale from (0)
46 “strongly disagree” to (4) “strongly agree”. For inferential analysis, Likert scale
47 variables were considered as “agree”/“disagree”/“don’t know”.
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3 (2) *Intended Stigmatising Behaviours in Relation to Mental Illness*
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6 These data were collected in relation to the concept of mental illness in general,
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8 rather than vignettes.
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11 *Intended stigmatising behaviours* were assessed using the intended behaviours
12 subscale from the Reported and Intended Behaviours Scale (RIBS) (Evans-Lacko et al.,
13 2011). The RIBS is a reliable and valid measure of discriminatory behaviour that is
14 often used to assess effectiveness of anti-stigma interventions. It consists of four
15 statements about a person's willingness to live with, work with, live nearby, and
16 continue a relationship with a person with mental illness. Responses to the items were
17 on a 5-point Likert scale from "strongly disagree" (0) to "strongly agree" (4). A
18 composite score, ranging from 0 to 16, was generated with a higher score representing
19 more positive intended behaviours (i.e., less discriminatory behaviour and greater
20 willingness to engage in relationship) toward persons with mental illness. The RIBS has
21 been found to have strong test-retest reliability (Cronbach's $\alpha = 0.85$).
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38 Participants responded to statements regarding (i) stereotype endorsement (three
39 items), (ii) beliefs about prognosis (two items), (iii) benevolent attitudes (three items),
40 (iv) exposure to mental health information in the media (two items), (v) help-seeking
41 behaviours (one item), (vi) willingness to self-disclose mental illness (two items), and
42 (vii) familiarity with mental illness (two items). For items with many possible
43 responses, dichotomised variables were created. For example, participants could choose
44 from multiple options regarding where they had heard about mental illness in the media
45 (newspaper, TV, radio, etc.). For inferential analysis, this was converted into a binary
46 variable ("Have you heard about mental illness in the media, yes or no?"). Participants
47 responded to some statements with "yes" or "no" and some statements on a 5-point
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3 Likert scale from (0) “strongly disagree” to (4) “strongly agree”. For inferential
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5 analysis, Likert scale variables were considered as “agree”/”disagree”/”don’t know”.
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8 Statements relating to stereotype endorsement and benevolent attitudes were combined
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10 into a composite score; further detail regarding the scoring of stereotype endorsement,
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12 beliefs about prognosis, and benevolent attitudes are available in the Appendix.
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16 ***Data Analyses***

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19 Exploratory descriptive and inferential analyses were conducted. Multivariable
20
21 linear regression identified determinants of stigma.
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24 ***Descriptive Analyses***

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27 Descriptive summaries were generated by reporting percentages and frequencies
28
29 of all nominal and categorical variables. Means and standard deviations were reported
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31 for continuous variables. Wilcoxon signed-rank tests were conducted to assess
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33 differences in responses to Likert scale-based variables between the vignettes and
34
35 differences in the dichotomised help-seeking variable and social distance scores. P-
36
37 values are reported with results of descriptive analyses.
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43 ***Inferential Analyses***

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46 Multivariable linear regression analyses were conducted to assess determinants
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48 of stigma, as represented by (1) social distance in relation to depression and psychosis,
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50 and (2) intended stigmatising behaviours in relation to mental illness in general. For
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52 question (1), the outcome was the social distance score, and predictors were all
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54 sociodemographic variables, emotional state and dichotomised responses to the
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56 vignettes. For question (2), the outcome was the RIBS score, and predictors were all
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3 sociodemographic variables, emotional state, and all other general mental health literacy
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5 variables from that section of the survey.
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8 In these analyses, univariable linear regressions were first conducted to explore
9
10 independent associations between the outcome and each predictor variable.

11
12 Multivariable regression models were then constructed. Gender and location were
13
14 included a priori in all models, given the importance of gender inequalities in
15
16 Afghanistan (Van Mierlo, 2012) and differences in the two data-collection locations.

17
18 The variables for familiarity and dangerousness were included a priori given their
19
20 importance in relevant literature (Angermeyer et al., 2004; Corrigan et al., 2012).
21
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23
24 Additional predictor variables associated with the outcome, as determined by a p-value
25
26 of less than or equal to 0.25 (Bursac et al., 2008; Zhang, 2016), were also included in
27
28 the multivariable model. Results (β coefficients, 95% confidence intervals, and p-
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30 values) of univariable and multivariable analysis were reported. Analyses were
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32 conducted using Stata 16.1.
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35 36 37 **Results**

38 39 40 *Descriptive Analyses*

41
42 Table 1 summarises frequencies and percentages of demographic characteristics
43
44 and emotional state responses.
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Table 1. Descriptive Characteristics of Sample

Variables		n (%)
Sociodemographics		
Location	Badghis	218 (30.3%)
	Herat	500 (69.7%)
Age*	18-29 years	299 (41.6%)
	30-39	182 (25.4%)
	40-49	118 (16.4%)
	50-59	68 (9.5%)
	60+	51 (7.1%)
Sex	Women	376 (52.4%)
	Men	342 (47.6%)
Marital Status	Unmarried	139 (19.4%)
	Engaged/Married	555 (77.3%)
	Widowed	21 (2.9%)
	Divorced/Separated	3 (0.4%)
Years of Education**	None	323 (45%)
	Incomplete Primary	51 (7.1%)
	Complete Primary	283 (39.4%)
	Complete Secondary	15 (2.1%)
	Graduate	43 (6%)
	Other	3 (0.4%)
Occupation	Unemployed	125 (17.4%)
	Profession/Technical/Managerial	24 (3.3%)
	Shopkeeper	86 (11.9%)
	Agriculture (self-employed)	9 (1.3%)
	Agriculture (labourer)	27 (3.8%)
	Domestic	293 (40.8%)
	Military/Police	9 (1.3%)
	Skilled Manual	60 (8.4%)
	Unskilled Manual	11 (1.5%)
	Other	74 (10.3%)
	Socioeconomic Status	Home Ownership
Land Ownership		126 (17.6%)
Taken loan in past 6 months		194 (27%)
Composite Variable		
Very low		42 (5.9%)
Emotional State	Low	234 (32.6%)
	Middle	365 (50.8%)
	Upper	77 (10.7%)
Depression Category	Normal	269 (37.5%)
	Mild	126 (17.5%)
	Moderate	182 (25.3%)
	Severe	55 (7.7%)
	Extremely Severe	86 (12%)
Anxiety Category	Normal	269 (37.5%)
	Mild	74 (10.3%)
	Moderate	167 (23.3%)
	Severe	64 (8.9%)
	Extremely Severe	144 (20%)
Stress Category	Normal	413 (57.5%)
	Mild	75 (10.4%)
	Moderate	83 (11.6%)
	Severe	65 (9.1%)
	Extremely Severe	82 (11.4%)
*mean age 34.8 years (SD 13.46); **mean years of education 5.0 years (SD 13.46)		

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2
3 Figure 1 shows proportions of responses to each vignette, grouped by
4
5 knowledge domains. The five questions at the bottom of each vignette's section were
6
7 combined into a social distance score. Mean social distance scores were 8.82 (SD=4.92)
8
9 for the depression vignette and 11.74 (SD=4.97) for the psychosis vignette. The
10
11 difference between these scores was statistically significant ($p<0.001$) in Wilcoxon
12
13 signed-rank test results.
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19 [Insert Figure 1]
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23
24 Figure 2 shows proportions of responses to items related to mental illness
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26 generally, including responses to the RIBS.
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30 [Insert Figure 2]
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35 Table 2 shows proportions of responses to additional, non-Likert based items on
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37 the survey relative to both questions (1) and (2). Summary scores for composite
38
39 variables based on the statements from Figure 2 are displayed.
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Table 2. Additional Variables

Variables assessed in relation to (1) Social Distance in relation to Depression and Psychosis			
		Depression n (%)	Psychosis n (%)
Etiology			
What kind of problem do you think this person has?	Mental	304 (42.3%)	380 (53%)
	Non-mental	414 (57.6%)	338 (47%)
	Financial*	325 (45.3%)	115 (16%)
	Family*	154 (21.4%)	52 (7.2%)
	Physical*	27 (3.8%)	75 (10.4%)
	Marital*	24 (3.3%)	16 (2.2%)
	Social*	19 (2.6%)	33 (4.6%)
	Evil Spirit*	5 (0.7%)	99 (13.8%)
	Other*	10 (1.4%)	29 (4%)
Don't Know*	32 (4.5%)	30 (4.2%)	
Prognosis Composite Variable			
Belief in possibility of recovery	Yes	656 (91.4%)	586 (81.6%)
	No	62 (8.6%)	132 (18.4%)
Familiarity			
Do you know someone with a similar situation?	Yes	292 (40.7%)	216 (30.1%)
	No	426 (59.3%)	502 (69.9%)
Exposure to Media			
Have you heard about a similar situation in the past year?	Yes	430 (59.9%)	388 (54%)
	No	288 (40.1%)	330 (46%)
Where have you heard about a similar situation?*	TV*	305 (42.5%)	238 (33.1%)
	Gossip*	93 (13%)	109 (15.2%)
	Radio*	44 (6.1%)	39 (5.4%)
	Magazine*	42 (5.8%)	20 (2.8%)
	Newspaper*	30 (4.2%)	14 (2%)
	Clinic*	24 (3.3%)	27 (3.8%)
	Poster/Leaflet*	16 (2.2%)	5 (0.7%)
	Other*	9 (1.3%)	9 (1.3%)
Help-seeking			
If you had a similar problem, would you seek help?*	Yes	653 (91%)	688 (95.8%)
	No	65 (9%)	30 (4.2%)
Where would you go for help if you were in a similar situation?*	Doctor in Psychiatric Hospital*	395 (55%)	397 (55.3%)
	Doctor in Psychiatric Clinic*	239 (33.3%)	232 (32.3%)
	Government Hospital*	149 (20.8%)	163 (22.7%)
	Government Clinic*	51 (7.1%)	62 (8.6%)
	Private Hospital*	75 (10.4%)	69 (9.6%)
	Private Clinic*	21 (2.9%)	32 (4.5%)
	Traditional Healer*	137 (19.1%)	181 (25.2%)
	Religious Teacher*	37 (5.2%)	40 (5.6%)
	Shrine*	25 (3.5%)	15 (2.1%)
	Cemetery*	24 (3.3%)	22 (3.1%)
	Pharmacy*	6 (0.8%)	3 (0.4%)
	Other Private Facility*	7 (1%)	7 (1%)
	Other*	30 (4.2%)	32 (4.5%)
Variables assessed in relation to (2) Intended Stigmatising Behaviours in relation to Mental Illness			
		n (%)	
Exposure to mental health information in media			
Have you received information about mental health in the past year?	Yes	475 (66.2%)	
	No	243 (33.8%)	
Where have you received information?*	TV*	324 (45.1%)	
	Gossip*	132 (18.4%)	

	Radio*	49 (6.8%)
	Magazine*	42 (5.8%)
	Clinic*	40 (5.6%)
	Poster*	14 (2%)
	Newspaper*	12 (1.7%)
	Other*	9 (1.3%)
Help-seeking		
Where do people in the community go for mental health problems?*	Hospital*	398 (55.4%)
	Clinic*	142 (19.8%)
	Traditional Healer*	49 (6.8%)
	Neighbour*	22 (3.1%)
	Nowhere*	15 (2.1%)
	Don't Know*	72 (10%)
	Other*	57 (7.9%)
Self-disclosure		
If you had a mental health problem, would you tell someone?	Yes	661 (92.1%)
	No	57 (7.9%)
If yes, who would you tell? *	Family*	83.4%
	Friend*	10.7%
Familiarity		
Do you know someone with a mental health problem?	Yes	637 (88.7%)
	No	81 (11.3%)
If yes, who do you know?*	Family member in my household*	171 (23.8%)
	Family member outside household*	139 (19.4%)
	Friend*	41 (5.7%)
	Neighbour*	37 (5.2%)
	Colleague*	21 (2.9%)
	Other*	251 (35%)
	Stigma Indicators Summary Scores	
	Mean	Standard Deviation
Stereotype Endorsement Score (range 0-12)	6.56	2.41
Benevolence Score (range 0-12)	6.9	1.78
Intended Behaviours (RIBS) Score (range 0-16)	6.73	4.33

* Percentages indicate positive responses and are not cumulative/mutually exclusive. Participants could select multiple responses.

**Statistically significant difference between the two vignettes ($p < 0.001$) in Wilcoxon signed-rank test results. In this table, only this variable was tested for differences between the vignettes.

Inferential Analyses

(1) Social Distance in Relation to Depression and Psychosis

Table 3 shows results of linear regression for both vignettes, with the outcome of Social Distance Score and predictor variables being sociodemographics, emotional state, and responses to statements about the vignettes.

Table 3. Predicting Social Distance in relation to Depression and Psychosis

	Depression Vignette		Psychosis Vignette	
	Univariable Analysis	Multivariable Adjusted Model	Univariable Analysis	Multivariable Adjusted Model
	β coefficient (95% CI)	β coefficient (95% CI)	β coefficient (95% CI)	β coefficient (95% CI)
Sociodemographic Characteristics				
Location				
Badghis (reference)	(ref)	(ref)	(ref)	(ref)
Herat	- 4.45 (- 5.16, - 3.73)*	-3.21 (-4.09, - 2.33)*	-0.34 (-1.13, 0.45)	-0.92 (-1.88, 0.04) †
Age	- 0.01 (- 0.03, 0.02)	-	0.01 (-0.01, 0.04)	-
Sex				
Men (reference)	(ref)	(ref)	(ref)	(ref)
Women	- 0.46 (- 1.18, 0.26) †	-1.12 (-2.22, 0.25)*	-0.52 (-1.24, 0.21) †	-1.5 (-2.67, - 0.33)*
Marital Status				
Unmarried (reference)	(ref)	(ref)	(ref)	(ref)
Engaged	-0.06 (-2.87, 2.75)		-1.32 (-4.15, 1.5)	-0.95 (-3.6, 1.7)
Married	-0.04 (-0.96, 0.88)		-0.13 (-1.05, 0.8)	-0.43 (-1.38, 0.52)
Widowed	0.74 (-1.52, 3.01)		0.28 (-2, 2.56)	-0.53 (-2.8, 1.73)
Divorced/Separated	-0.16 (-5.81, 5.49)		-4.2 (-9.89, 1.5) †	-4.5 (-9.84, 0.78) †
Years of Education	- 0.02 (- 0.09, - 0.05)	-	-0.07 (-0.14, 0.003) †	-0.02 (-0.1, 0.05)
Occupation				
Unemployed (reference)	(ref)	(ref)	(ref)	(ref)
Professional/Technical/Manager	- 2.35 (- 4.49, - 0.2)*	-1.05 (-2.95, 0.85)	-0.96 (-3.13, 1.21)	-0.41 (-2.46, 1.64)
Shopkeeper	0.9 (-0.45, 2.24)	0.37 (-0.84, 1.58)	-0.46 (-1.82, 0.9)	-0.73 (-2.03, 0.58)
Agriculture (self-employed)	2.5 (-0.82, 5.82)	-0.24 (-3.16, 2.69)	0.12 (-3.24, 3.48)	0.55 (-2.61, 3.71)
Agriculture (labourer)	-1.35 (-3.39, 0.69)	-1.05 (-2.86, 0.76)	-0.47 (-2.54, 1.6)	-1.36 (-3.31, 0.6) †
Domestic	0.4 (-0.65, 1.43)	0.73 (-0.51, 1.97)	0.11 (-0.92, 1.15)	1.38 (0.04, 2.72) †
Military/Police	0.17 (-3.15, 3.49)	-1.21 (-4.11, 1.68)	-0.32 (-3.68, 3.04)	-0.12 (-3.25, 3.01)
Skilled Manual	-0.45 (-1.96, 1.06)	-0.17 (-1.51, 1.17)	0.92 (-0.6, 2.45) †	0.45 (-1, 1.9)
Unskilled Manual	-0.54 (-3.56, 2.49)	-1.09 (-3.79, 1.61)	2.27 (-0.79, 5.34) †	2.08 (-0.82, 4.97) †
Other	-0.31 (-1.72, 1.1)	0.54 (-0.78, 1.86)	1.37 (-0.05, 2.8) †	1.9 (0.47, 3.33) †
Socioeconomic Status				
Very Low (reference)	(ref)	(ref)	(ref)	(ref)
Low	1.3 (-0.32, 2.91) †	1.24 (-0.2, 2.68) †	1.1 (-0.53, 2.74) †	0.91 (-0.64, 2.45) †
Middle	1.14 (-0.43,	1.62 (0.22,	1.15 (-0.44,	1.03 (-0.46,

	2.71) †	3.02)*	2.74) †	2.53) †
Upper	1.81 (-0.04, 3.66) †	1.73 (0.09, 3.36)*	1.41 (-0.46, 3.28) †	1.47 (-0.29, 3.23) †
Emotional State				
Depression Category				
Normal (reference)	(ref)	(ref)	(ref)	(ref)
Mild	-0.79 (-1.82, 0.25) †	-0.42 (-1.35, 0.5)	-0.33 (-1.36, 0.7)	-0.18 (-1.18, 0.82)
Moderate	0.08 (-0.82, 0.99)	0.25 (-0.67, 1.17)	0.65 (-0.26, 1.57) †	0.75 (-0.23, 1.73) †
Severe	-0.3 (-1.71, 1.11)	0.86 (-0.59, 2.32) †	2.19 (0.78, 3.6)*	2.61 (1.05, 4.17)*
Extremely Severe	-2.41 (-3.59, -1.22)*	1.77 (0.1, 3.44)*	3.14 (1.96, 4.32)*	2.93 (1.13, 4.73)*
Anxiety Category				
Normal (reference)	(ref)	(ref)	(ref)	(ref)
Mild	-0.05 (-1.3, 1.2)	0.02 (-1.1, 1.15)	0.31 (-1.23, 1.3)	0.1 (-1.11, 1.32)
Moderate	-0.38 (-1.32, 0.56)	-0.15, (-1.06, 0.77)	-0.57 (-1.52, 0.38)	-0.74 (-1.72, 0.24) †
Severe	0.06 (-1.27, 1.38)	0.27 (-1.01, 1.56)	0.63 (-0.7, 1.97)	0.58 (-0.8, 1.96)
Extremely Severe	-2.07 (-3.06, -1.08)*	0.42 (-1.01, 1.85)	1.9 (0.9, 2.89)*	0.79 (-0.74, 2.32)
Stress Category				
Normal (reference)	(ref)	(ref)	(ref)	(ref)
Mild	-0.21 (-1.39, 0.97)	-0.66 (-1.77, 0.45) †	-0.8 (-1.29, 1.14)	-0.61 (-1.8, 0.58)
Moderate	-1.58 (-2.71, -0.44)*	-1.26 (-2.41, -0.11)*	0.18 (-0.98, 1.35)	-0.48 (-1.73, 0.76)
Severe	-1.08 (-2.34, 0.17) †	-0.59 (-2.07, 0.9)	1 (-0.29, 2.29) †	-0.74 (-2.34, 0.86)
Extremely Severe	-3.59 (-4.73, -2.45)*	-3.7 (-5.56, -1.83)*	2.18 (1.01, 3.35)*	-1.64 (-3.65, 0.37) †
Etiology				
Mental Problem vs Other	-1.72 (-2.44, -1)*	-0.71 (-1.4, -0.02)*	0.06 (-0.66, 0.79)	-
Prognosis				
Belief in ability to recover	-1.53 (-2.8, -0.25)*	-1.31 (-2.46, -0.16)*	-1.87 (-2.8, -0.94)*	-1.2 (-2.15, -0.25)*
Beliefs about person				
This problem is a sign of person weakness	0.16 (-0.23, 0.56)	-	0.62 (0.22, 1.01)*	-0.1 (-0.51, 0.31)
People with this problem are dangerous	1.48 (1.11, 1.85)*	1.06 (0.7, 1.44)*	1.6 (1.14, 2.06)*	1.43 (0.97, 1.89)*
People with this problem should be avoided	0.4 (-0.04, 0.83) †	-0.15 (-0.58, 0.27)	-0.01 (-0.44, 0.41)	-
Helpfulness of Treatments				
Talking to friend/family	-0.26 (-1.07, 0.55)	-	-0.65 (-1.37, 0.08) †	-0.86 (-1.54, -0.18)*
Consulting a primary doctor	0.93 (0.21, 1.64)*	-0.04 (-0.71, 0.62)	-0.09 (-0.81, 0.63)	-
Consulting a mental health professional	0.14 (-0.78, 1.06)	-	-0.52 (-1.34, 0.3) †	-0.94 (-1.72, -0.15)*
Consulting a traditional healer	1.43 (1.04, 1.82)*	0.1 (-0.34, 0.53)	-0.4 (-0.8, 0.007) †	-0.84 (-1.32, -0.36)*
Vitamins/tonics	1.28 (0.87, 1.68)*	0.42 (-0.15, 0.99) †	0.97 (0.56, 1.37)*	0.92 (0.22, 1.63)*
Saline drip	0.93 (0.53, 1.33)*	0.26 (-0.29, 0.81)*	0.96 (0.56, 1.36)*	0.35 (-0.34, 0.99)*

	1.33)*	0.81)	1.37)*	1.03)
Familiarity				
Do you know someone with a similar problem?	-1.08 (-1.81, -0.35)*	-0.97 (-1.64, -0.3)*	-0.76 (-1.55, 0.03) †	-0.63 (-1.41, 0.15) †

* $p \leq 0.05$; † $p \leq 0.25$

In the adjusted model for depression, people in Herat were more likely to have a lower preference for social distance from the person in the vignette. Women and persons with moderate or extremely severe stress were more likely to have a lower preference for social distance. Belief in the potential for recovery, describing the vignette as a “mental problem” and familiarity were associated with slightly lower preference for social distance. Participants of higher socioeconomic status, those with severe depression, and those who believed the person in the vignette was dangerous, were more likely to have a greater preference for social distance.

In the adjusted model for the psychosis vignette, women were again more likely to have a lower preference for social distance. Belief in positive prognosis and in the helpfulness of talking to a friend, consulting a mental health professional and consulting a traditional healer, were associated with a slightly lower preference for social distance. Believing the person in the vignette was dangerous, having severe depression and believing in the helpfulness of vitamins/tonics were associated with a greater preference for social distance.

Univariable regression results are displayed in the first and third columns, and the multivariable adjusted models in the second and fourth columns.

(2) *Intended Stigmatising Behaviours in Relation to Mental Illness*

Table 4 shows results of linear regression for the outcome of intended

stigmatising behaviours (RIBS) score and predictor variables being sociodemographics, emotional state, responses to statements about mental illness (representing general mental health literacy), and the composite stigma indicators of stereotype endorsement and benevolence scores. In the final model, being in Herat, believing that mentally ill persons can recover, and more benevolent attitudes were associated with a higher RIBS score (i.e., more willingness to engage in relationship). Increasing socioeconomic status and severe depression were associated with a lower willingness to engage in relationship. Univariable regression results are displayed in the first column, and the final multivariable adjusted model in the second column.

Table 4. Predicting Intended Stigmatising Behaviours in relation to Mental Illness

	Univariable Analysis	Multivariable Adjusted Model
	β coefficient (95% CI)	β coefficient (95% CI)
Sociodemographic Characteristics		
Location		
Badghis (reference)	(ref)	(ref)
Herat	1.51 (0.83, 2.19)*	1.47 (0.72, 2.21)*
Age	-0.02 (-0.05, 0.002) †	-0.01 (-0.03, 0.02)
Sex		
Men (reference)	(ref)	(ref)
Women	1.04 (0.41, 1.68)*	0.66 (-0.34, 1.67) †
Marital Status		
Unmarried (reference)	(ref)	(ref)
Engaged	-0.26 (-2.73, 2.21)	-
Married	0.32 (-0.49, 1.13)	-
Widowed	0.32 (-1.68, 2.32)	-
Divorced/Separated	-1.16 (-6.13, 3.81)	-
Years of Education	0.07 (0.01, 0.13)*	0.01 (-0.06, 0.08)
Occupation		
Unemployed (reference)	(ref)	(ref)
Professional/Technical/Manager	1.31 (-0.58, 3.2) †	0.33 (-1.42, 2.07)
Shopkeeper	0.75 (-0.44, 1.94) †	1 (-0.1, 2.11) †
Agriculture (self-employed)	-0.06 (-2.99, 2.86)	1.14 (-1.54, 3.82)
Agriculture (labourer)	-0.51 (-2.31, 1.29)	-0.16 (-1.82, 1.5)
Domestic	0.84 (-0.7, 1.75) †	0.12 (-1.01, 1.25)
Military/Police	-1.29 (-4.21, 1.64)	-0.48 (-3.14, 2.18)
Skilled Manual	0.45 (-0.87, 1.78)	0.3 (-0.92, 1.52)
Unskilled Manual	0.03 (-2.64, 2.69)	-0.78 (-3.26, 1.7)
Other	1.8 (0.56, 3.04)*	0.84 (-0.36, 2.03) †
Socioeconomic Status		
Very Low (reference)	(ref)	(ref)
Low	-1.5 (-2.92, -0.08)*	-1.42 (-2.74, -0.11)*

Middle	-1.93 (-3.31, -0.56)*	-2.25 (-3.52, -0.98)*
Upper	- 2.12 (-3.74, -0.49)*	-2.48 (-3.98, -0.99)*
Emotional State		
Depression Category		
Normal (reference)	(ref)	(ref)
Mild	0.11 (-0.8, 1.02)	-0.09 (-0.94, 0.75)
Moderate	-0.27 (-1.08, 0.54)	0.11 (-0.73, 0.95)
Severe	-1.03 (-2.28, 0.21) †	-0.41 (-1.74, 0.92)
Extremely Severe	-2.22 (-3.26, -1.17)*	-1.31 (-2.84, 0.22)*
Anxiety Category		
Normal (reference)	(ref)	(ref)
Mild	0.16 (-0.96, 1.27)	0.29 (-0.74, 1.32)
Moderate	-0.13 (-0.97, 0.7)	0.01 (-0.84, 0.83)
Severe	-0.75 (-1.93, 0.43) †	-0.22 (-1.4, 0.95)
Extremely Severe	-1.25 (-2.12, -0.37)*	-0.07 (-1.38, 1.23)
Stress Category		
Normal (reference)	(ref)	(ref)
Mild	-0.68 (-1.74, 0.37) †	-0.62 (-1.65, 0.4)
Moderate	0.46 (-0.55, 1.48)	0.27 (-0.79, 1.33)
Severe	-1.03 (-2.16, 0.09) †	-1.22 (-2.57, 0.14) †
Extremely Severe	-1.68 (-2.7, -0.66)*	-1.41 (-3.14, 0.32) †
Composite Stigma Measures		
Stereotype Endorsement Score	-0.3 (-0.43, -0.17)*	-0.1 (-0.23, 0.03) †
Benevolence Score	0.65 (0.48, 0.82)*	0.46 (0.28, 0.63)*
Beliefs about Prognosis		
Recovery	1.29 (0.99, 1.58)*	1.07 (0.77, 1.36)*
Medication Usefulness	0.48 (0.1, 0.85)*	0.11 (-0.26, 0.48)
Exposure to Media		
Have you heard any information about mental health in the past year? (Yes or no)	0.68 (0.01, 1.35)*	0.35 (-0.28, 0.98)
Self-disclosure		
If you had a mental health problem, would you tell someone? (Yes or no)	0.85 (-0.33, 2.02) †	0.89 (-0.2, 1.96) †
Familiarity		
Do you know someone with a mental illness?	-0.47 (-1.48, 0.53)	-

Positive coefficients represent correlation with positive intended behaviours. * $p \leq 0.05$; † $p \leq 0.25$

Discussion

This study explored the nature and patterns of mental health stigma among community members in Afghanistan; as represented by preference for social distance from persons with depression and psychosis, and intended stigmatising behaviours toward persons with mental illness generally.

Results highlighted significant discriminatory attitudes toward persons with

1
2
3 depression and psychosis, with preference for social distance increasing as intimacy
4 level increased. The most common stereotypes were that mentally ill people are
5 dangerous and that they cannot marry. Following the “what matters most” approach
6 (Yang et al., 2007), work and marriage are important to address in anti-stigma
7 programmes in this context, as these seemed to be the areas where even people with
8 depression were most likely to be excluded. It is particularly important that anti-stigma
9 programmes improve the possibilities for poorer women with mental illness to be able
10 to marry, as they are among the most marginalised in the Afghan context. With regard
11 to psychosis, it would seem important to promote beliefs in the ability of persons with
12 psychosis to live good lives, as perceived by Afghan culture, and to target negative
13 beliefs around dangerousness, also a common stereotype in other settings (Angermeyer
14 et al., 2003; Angermeyer et al., 2004; Corrigan et al., 2012; Kermode et al., 2009).

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32 In comparing responses to the vignettes, to participants’ intended stigmatising
33 behaviours toward persons with mental illness generally, the results showed particularly
34 negative attitudes toward the label of mental illness (Dari = *taklif-e rowani*). For
35 example, nearly half of participants said they would be willing to be a neighbour to the
36 person in the psychosis vignette, but regarding intended behaviours toward mental
37 illness generally, only a third of participants said they would be willing to “live near
38 someone with mental illness”. While referring to conditions as mental illness may
39 demonstrate greater mental health literacy (Rüsch et al., 2012), the label of mental
40 illness can lead to more severe stigma (Angermeyer et al., 2003; Corrigan, 2004). One
41 fruitful area of anti-stigma research and practice could be the development of local,
42 context-appropriate descriptions of mental illness which could make discussion of these
43 topics less stigmatising.

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Nearly all participants reported they would share with someone if they had a

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3 mental health problem; however, only a small minority said that this would be to
4 someone outside their family. This highlights the social dimensions of stigma and
5 concerns about loss of “face” (Ho, 1976) and reputation in the community. Programmes
6 to increase mental health literacy for the general public (i.e. family members of persons
7 with mental illness) are important, as their responses to disclosure are likely to
8 meaningfully impact help-seeking (Tay et al., 2018).
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18 Location was a key factor associated with social distance in relation to
19 depression, with residents in Herat expressing a lower preference for social distance. It
20 seemed the population of Herat is much more accepting of persons with depression, but
21 this greater acceptance disappeared regarding psychosis. An effect of location was also
22 present in relation to intended stigmatising behaviours; being in Herat, as compared to
23 Badghis, was associated with more positive intended behaviours. This indicates that
24 anti-stigma work might be especially needed in smaller, rural locations. This is in line
25 with the current National Mental Health Strategy of Afghanistan (*National Strategy for*
26 *Mental Health*, 2019) which prioritises the poorest and most remote areas of
27 Afghanistan.
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42 Women had a slightly lower preference for social distance in response to both
43 vignettes, mirroring findings from other studies (Holzinger, et al., 2012). If women are
44 already marginalised, then the negative social impact of contact with persons with
45 mental illness may be less. Holman (2015) has also suggested that this common finding
46 could be related to an interaction between gender and social status or class.
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54 There was a trend of increasing preference for social distance for the depression
55 vignette with increasing socioeconomic status. This association was also found
56 regarding intended stigmatising behaviours toward mental illness generally. This was an
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3 unexpected finding given that many studies have found the opposite association
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5 (Bhavsar et al., 2019; Cechnicki et al., 2011; Corrigan & Watson, 2007; Hansson et al.,
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7 2016; Robinson & Henderson, 2019; Wang et al., 2007), possibly due to lower
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9 education levels and less access to mental healthcare among those of lower
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11 socioeconomic status (Potts & Henderson, 2020).
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15 A few studies, however, have found associations of increased stigma with high
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17 income (Alexander & Link, 2003; Martin et al., 2000; Venkatesh et al., 2015). Foster
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19 (2021) has suggested that those of higher socioeconomic status may hold more
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21 stigmatising views because they view mental illness as more controllable and therefore,
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23 mentally ill individuals are blamed for their illness.
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27 It's possible these dynamics are also at work in Afghanistan, but we would
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29 suggest an additional possibility, that the findings are related to reputation, honour
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31 culture, and social status. The only other study from south Asia (India) to find a similar
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33 association also suggested this reason (Venkatesh et al., 2015). In a culture where
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35 economic opportunity is often tied to relationships and one's social positioning and
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37 family honour (Eggerman & Panter-Brick, 2010), then we surmise that contact with
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39 persons with mental illness could be seen as more threatening to those in higher
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41 positions (in other words, they have more to lose by associating with mental illness).
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43 Social exclusion related to stigma has been suggested to have a greater impact on those
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45 of higher social standing and those from majority ethnic groups in Afghanistan, as they
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47 are more likely to be constrained by social expectations; and that rich and poor are
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49 equally affected by social exclusion in Afghanistan, in contrast to findings from other
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51 countries (Trani et al., 2016).
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58 It would seem especially important that anti-stigma programmes understand and
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2
3 mitigate concerns around this social cost (loss of reputation and thus, loss of economic
4 opportunity) of contact with persons with mental illness. Again, using the “what matters
5 most” approach (Yang et al., 2007), it would seem that this matters a great deal in
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7 Afghanistan. It is recommended that qualitative research be conducted into these topics.
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11 While some qualitative research in Afghanistan has focused on those who experience
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13 stigma (Allan et al., 2018), to our knowledge, a qualitative inquiry into attitudes of
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15 “stigmatisers” and their reasons for holding stigmatising attitudes, has not been done.
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21 This research could help identify what makes mental illness “dishonourable”
22 and reputation-damaging in the eyes of Afghans, and then address that in anti-stigma
23 programmes. The relationship of gender to honour needs addressed in relevant ways,
24 responding to intracultural variations across Afghanistan, especially in conservative
25 rural areas. We also recommend that people from diverse socioeconomic backgrounds
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27 have the opportunity to contribute to policy decisions around mental health. Further
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29 research to confirm reputation and honour culture as a mediator of the relationship
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31 between socioeconomic status and stigma could also be conducted.
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41 It was surprising that familiarity only predicted a slightly lower preference for
42 social distance in the depression vignette. Contact with persons with mental illness is
43 seen as an effective component of many anti-stigma interventions (Corrigan & Watson,
44 2002; Maunder & White, 2019). A pair of similar studies from another Islamic country,
45 Turkey, also found no association between direct personal contact and decreased stigma
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47 (Arkar & Eker, 1994; Arkar et al., 2004). Given similar findings from Egypt (Coker,
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49 2005), the reason for this could be that certain behaviours associated with mental illness
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51 are viewed as threats to community social cohesion in some cultures (Thornicroft,
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53 2006). It is also reported that there are, in general, certain optimal conditions during
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55 which social contact is most effective in reducing prejudice (Pettigrew et al., 2011). The
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3 finding that familiarity only had a slight impact on preference for social distance
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5 possibly indicates that in Afghanistan, familiarity alone is not enough to reduce stigma,
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7 and further exploration is needed to better understand what specific type of social
8
9 contact might be most effective. Future anti-stigma campaigns using contact (e.g.,
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11 stories of lived experience of mental illness in the media), need ongoing evaluation to
12
13 ensure stigma is actually reduced in the Afghan context. **Anti-stigma educational**
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15 **programmes should also take the ongoing conflict into account, highlighting for**
16
17 **community members that the prevalence of mental distress will be high and common in**
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19 **conflict settings, and that people should therefore be aware of mental health concerns**
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21 **and support help-seeking for those experiencing distress.**
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28 There was no evidence of association between social distance and views on the
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30 helpfulness of different treatments in the depression vignette. This suggests that
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32 depression might be seen as a normal life experience, related to financial or other
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34 stressors, and not requiring any special therapeutic help (Roberts et al., 2020) - whereas
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36 for psychosis, participants had stronger opinions about what kinds of help are
37
38 appropriate. Regarding psychosis, believing in the helpfulness of talking to a friend, and
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40 consulting either a mental health professional or traditional healer, all predicted a lower
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42 preference for social distance. On the other hand, believing that vitamins/tonics would
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44 be helpful predicted a greater preference for social distance. This perhaps indicates that
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46 if one believes an illness can be helped by talking to someone, it is seen as a more
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48 transient problem; whereas if a person needs to ingest medication, then the problem is
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50 seen to represent an inherent biological flaw. Other studies have shown the limitations
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52 of biological explanations for reducing stigma because it can increase beliefs that
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54 mental illness is a fundamental flaw (Angermeyer et al., 2003; Jorm & Oh, 2009;
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56 Kermode et al., 2009; Schomerus et al., 2012).
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3 This discussion has highlighted key findings. Other associations with small
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5 effect sizes were also observed in inferential analyses, for example, stress in oneself was
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7 associated with decreased social distance in relation to the depression vignette;
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9 depression in oneself was associated with increased social distance (for both vignettes)
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11 and with more intended stigmatising behaviours. These findings regarding emotional
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13 state were inconclusive, but the consistent association with depression in oneself is
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15 noteworthy and could be further explored.
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20 This study has many strengths. It reports on novel findings for this context
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22 regarding determinants of stigma, where issues around stigma and discrimination have
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24 thus far been underexplored. These findings are based on a large, representative sample
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26 for the context. These insights serve as a basis for further research and anti-stigma
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28 interventions in Afghanistan, and contribute to the literature on stigma within the field
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30 of global mental health through providing insights from a unique cultural setting. These
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32 findings do, however, need to be considered in view of some limitations. The survey
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34 tool contained a mixture of items taken ad hoc from a variety of validated measures.
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36 This presents challenges when comparing findings to other research. However, the data
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38 still provide important insights regarding stigma in this context. Also, responses to
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40 hypothetical vignettes only provide a proxy measure of discrimination and need
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42 validation against actual behaviour. However, this type of survey is an important first
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44 step before moving on to intervention studies.
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51 In conclusion, this study provides much needed new insights on stigma to
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53 inform action in Afghanistan, a unique and under-researched context characterised by
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55 trauma and conflict, where mental health interventions (including those to reduce
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57 stigma) are especially critical. We hope this study provides value to decision makers in
58
59 designing locally owned and culturally relevant anti-stigma campaigns.
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Data Accessibility Statement

The data that support the findings of this study are available on request from IAM. Consent was not sought to share data publicly.

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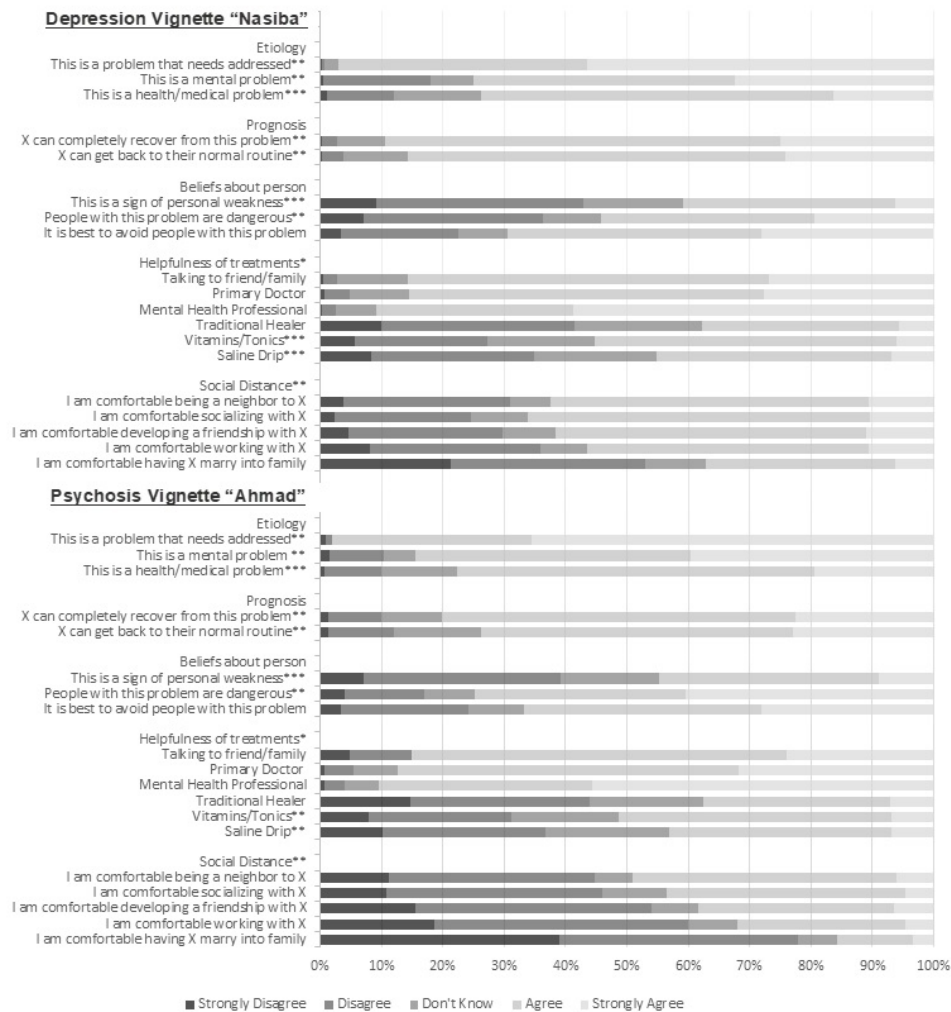
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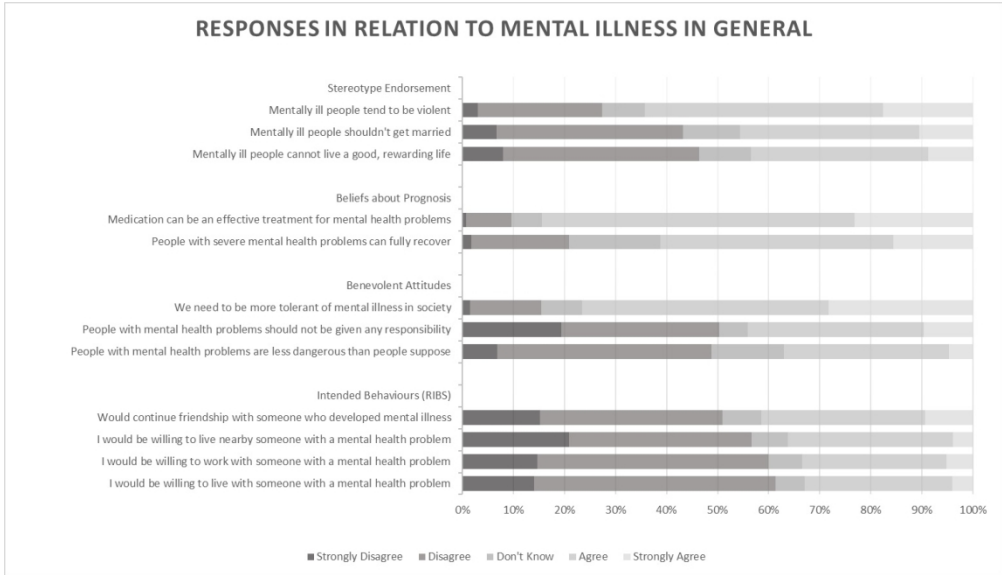
RESPONSES TO DEPRESSION AND PSYCHOSIS VIGNETTES



* For these statements, participants responded with "Helpful" (green) or "Harmful" (red)
 ** Statistically significant difference between vignettes (p<0.001) in Wilcoxon signed-rank test results
 *** Statistically significant difference between vignettes (p<=0.05) in Wilcoxon signed-rank test results

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Appendix – Scoring Protocol Details

Beliefs about prognosis were assessed with statements, “People with severe mental health problems can fully recover” and “Medication can be an effective treatment for people with mental health problems”, reflecting items 3 and 5 from the Mental Health Knowledge Schedule (MAKS)². Participants responded on a 5-point Likert Scale to each statement (Strongly disagree to Strongly agree). These items were treated individually in subsequent analyses. No composite score was generated.

Stereotype endorsement was assessed using items 2, 6, and 10 from the Internalized Stigma of Mental Illness (ISMI) scale¹: “Mentally ill people tend to be violent”, “Mentally ill people shouldn’t get married,” and “People with mental illness cannot live a good, rewarding life”. Participants responded on a 5-point Likert Scale to each statement (Strongly disagree to Strongly agree). Responses were combined to a composite score (range 0-12; higher score indicating greater endorsement of stereotypes).

Benevolent attitudes were assessed using items 3, 10 and 11 from Community Attitudes to Mental Illness (CAMI) scale³: “People with mental health problems are far less of a danger than most people suppose”, “We need to adopt a far more tolerant attitude toward people with mental illness in our society”, “People with mental health problems should not be given any responsibility” (item reverse scored). Participants responded on a 5-point Likert Scale to each statement (Strongly disagree to Strongly agree). Responses were combined to a composite score (range 0-12; higher score indicating more benevolent attitudes).

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