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# SCENARIO OF MENTAL HEALTH IN BANGLADESH: A SIGNATURE GLIMPSE

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**Abstract**

The study aims to gain primary evidences on the mental health condition of Bangladesh. A quantitative survey instrument was applied on 982 respondents from Dhaka, Chittagong, and Rajshahi divisions in Bangladesh. It included adult sample, aged above 18 years from different hospitals, universities and organizations. 51.7% of the respondents were male and rest 48.9% female. The survey focused on knowledge, attitude and behavior related to mental health. This paper presents the behavioral manifestation of mental health condition. From the description of different psychological problems the responders encounter in their life, depression (69.5%) was identified as the highest manifested mental health issue followed by anxiety (66.8%) and study-related issues (64.5%). Notable percentage had experience of trauma (28.0%), and abuse (19.2% physical abuse and 10.1% sexual abuse). Suicidal ideation was found to be present in 19.8% of the respondents. Significant gender differences towards male were found for problem with study, anger, romantic relation, eating, and substance abuse. Females had significantly higher experience of sexual abuse. Similar significant regional difference were noted for several behavioral indicators of mental health; Dhaka being the highest prevailing region. It was found to be true specifically for suicidal thoughts and attempts. This study reestablished the alarming situation of mental health existing among the people in Bangladesh which call forth urgent action to address the most vital aspect of health through psychological assistance.

## Introduction

Undoubtedly mental health has been recognized as a global public health concern of this millennium. In this age of digitalization people are thriving for networking beyond boarders for success and achievement. There is a rapid alteration of knowledge and learning as well as context of life style and values[1]. Responding and coping with the demand of changes in life in a meaningful way is a humongous mental health challenge, both at individual as well as community levels. International agencies have been expanding their policies and finances on mental health as vital to overall wellbeing of a

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person [2-4]. With no exception burden of mental health in Bangladesh is substantially high and yet to be well documented to catch the appropriate attention for upturn[5-7]. Research evidence demonstrated that 6.5 to 31% of adults, and 13.4 to 22% of children in Bangladesh suffer from various kinds of mental health disorders [7]. The National Mental Health Survey in Bangladesh revealed a prevalence of above 16.8% suffering from mental disorder among adults and above 13.6% among children[8]. Besides more than 1% of severe mental disorder, depression and psychoneurosis have been the most diagnosed mental disorder[7]. A recent study of WHO estimates that Bangladesh currently has 6.4 million people suffers from depression disorder [9].

Study on children and adolescents also portrayed similar scenario. Behavioral and emotional disorders were found to be highly prevalent (40.35%) among orphans and adolescents in residential care[10]. Children from slum areas were significantly more likely to have serious behavioral problems as well as marginally likelihood of post-traumatic stress disorders[11].

Estimated psychiatric disorders in rural areas (16.5%) was also alarming[5] with majority suffering from depressive and anxiety disorder. A significantly higher prevalence of mental disorder has been found in economically poor respondents [12]. Depression is associated with poverty and derives from social causes such as the tension of having girls in the family and the expenses of marrying off, inability to work and lack of education [13].

Researchers have described mental disorders in Bangladesh as a serious but repeatedly overlooked and neglected as a tight corner [14-15] that have a stern impact on the public health in Bangladesh. Increase rate of suicide is a growing evidence of poor mental health yet staging a vital share of health and wellbeing[7]. Owing to stigma and silence around mental health prevailing in the society[16], all estimates can be documented as underrepresentation of the reality[17-18]. There is more to know and uncover about the incidence, associated behaviors and attitude, available services to bring the real scenario of mental health in Bangladesh to the forefront. Furthermore, speaking about mental health in shared domain will have an indirect impact on building awareness on the issue of mental health against stigma and shame. Purpose of this study is to have a firsthand report from the general population about their mental health. It also aims to have a comparative view of mental health status to identify gender and regional variability in Bangladesh. To fathom into the gravity of the mental health problem the study specifically probe into suicidal issue.

## Materials and Methods

This study used non-experimental descriptive design which simply involves measurement without changing its phenomenon or situation to be measured[19]. Descriptive research, also known as statistical research, portrays data and characteristics

of population or phenomenon being studied. Convenient sampling has been used to draw sample from the population available at location on the time of the study. Study location was selected on the basis of the easy to reach. All possible sample were invited to participate. Availability and willingness to participate were the only criteria of inclusion[20]. People seeking any kind of health service were excluded from the study. The study was conducted from November 2015 to November 2016. Ethical clearance from all relevant authority was obtained prior to conduction. A total of 982 respondents participated in the survey from three division - Dhaka, Chittagong and Rajshahi. The gender distribution of the respondents were almost equal with male (51.7%) and female (48.3%). Majority (67.3%) of them was young adults within 18-28 years of age, and from varied income group.

Survey data were filled up from public hospital, public university, private university, and other organization premises (Table 1).

**Table 1. Study sites by divisional category.**

| Study location | Sample | Division | | |
|---|---|---|---|---|
| | | Dhaka | Rajshahi | Chittagong |
| | % (982) | % (397) | % (301) | % (284) |
| Public University | 41.9 (412) | 28.4 (117) | 45.4 (187) | 26.2 (108) |
| Private University | 16.8 (165) | 17.0 (28) | 35.8 (59) | 47.3 (78) |
| Medical College | 37.4 (367) | 47.9 (176) | 16.6 (55) | 29.9 (99) |
| NGO | 3.9 (38) | 100.0 (38) | 0.0 (0) | 0.0 (0) |

A consent form was given to those who agreed to participate in the study and a verbal consent was taken from those who could not read or write. A structured survey questionnaire developed based on concepts from Mount Holyoke's counseling service survey with their permission were used. The questionnaire has been piloted on twenty person to modify the items into simple, understandable and more easily administrable form. The questionnaire consists of personal and demographic information part and formatted questions to identify different psychological problems encountered at the present time of life.

## Results and Discussion

The personal and demographic characteristics of the respondents by their geographical locations are presented in Table 2. As the figures of the table indicates, the highest number of respondents (40.4%) were from Dhaka, followed by Rajshahi (30.7%) and Chittagong (28.9%). The gender distribution of the respondents across the three

divisions is parallel to the total distribution. Majority of the respondent were unmarried (56.7%) and students (49.8%). 75.9% of them have completed Bachelor's Degrees. Among the three-division majority (45.9%) of the married respondents were from Dhaka division. Similarly, percentage of illiterate (60.0%) and below HSC (53.5%) were higher in Dhaka than in other two divisions. Percentage of working respondents (45.6%) was also greater in Dhaka.

**Table 2. Personal and demographic information of the respondents by geographical location from the quantitative survey (n = 982).**

| Variables | Attributes | Sample % (982) | Division | | |
|---|---|---|---|---|---|
| | | | Dhaka % (397) | Rajshahi % (301) | Chittagong % (284) |
| Total | | 100 (982) | 40.4 (397) | 30.7 (301) | 28.9 (284) |
| Gender | Male | 51.7 (509) | 39.9 (203) | 30.3 (154) | 29.9 (152) |
| | Female | 48.3 (475) | 41.1 (195) | 31.0 (147) | 27.8 (132) |
| Age | 18-28 | 67.3 (662) | 35.6 (236) | 34.0 (225) | 30.4 (201) |
| | 29-39 | 21.3 (210) | 50.0 (105) | 22.9 (48) | 20.0 (57) |
| | 40-above | 11.4 (112) | 50.9 (57) | 25.0 (28) | 24.1(27) |
| Marital status | Married | 39.8 (392) | 45.9 (180) | 25.5 (100) | 28.6 (112) |
| | Unmarried | 56.7(558) | 35.8 (200) | 33.9 (189) | 30.3 (169) |
| | Single | 3.5 (34) | 52.9 (18) | 35.3 (12) | 11.8 (4) |
| Education | Illiterate | 4.1 (40) | 60.0 (24) | 22.5 (9) | 17.5 (7) |
| | Primary to HSC | 20.0 (197) | 53.8 (106) | 30.5 (60) | 15.7 (31) |
| | Bachelor and above | 75.9 (747) | 35.9 (268) | 31.1(232) | 33.1 (247) |
| Profession | Unemployed & housewife | 17.3 (170) | 56.5 (96) | 20.6 (35) | 25.9 (39) |
| | Students | 49.8 (490) | 30.8 (151) | 37.6 (184) | 31.6 (155) |
| | Employed and business | 29.2 (287) | 45.6 (131) | 24.4 (70) | 30.0 (86) |
| | Others | 3.8 (37) | 54.1(20) | 32.4 (12) | 13.5 (5) |

Presence of psychological problems among survey respondents was explored through the respondents' report of the psycho-social difficulties they have been facing in their lives, especially in recent times (Table 3). Gender difference and regional comparison of responses are also presented in Tables 3 and 4, respectively.

**Table 3. Psycho-social problems among survey respondents by gender (n = 982).**

| Problem faced | Sample | Gender | | $\chi 2$ |
|---|---|---|---|---|
| | | Male | Female | |
| | % (982) | % (509) | % (475) | |
| Depression | 69.5 (672) | 53.1 (357) | 46.9 (315) | 3.12 |
| Anxiety | 66.8 (633) | 52.4 (332) | 47.6 (301) | 0.44 |
| Study related | 64.5 (615) | 55.9 (344) | 44.1 (271) | 9.13** |
| Anger | 61.7 (588) | 55.8 (328) | 44.2 (260) | 10.62** |
| Personal stress | 58.0 (551) | 50.1 (276) | 49.9 (275) | 1.33 |
| Pain of loss | 54.8 (529) | 49.9 (264) | 50.1 (265) | 1.19 |
| Fear | 54.1 (520) | 47.9 (249) | 52.1 (271) | 5.78* |
| Low self esteem | 46.9 (443) | 52.4 (232) | 47.6 (211) | 0.33 |
| Dispute | 42.1 (407) | 52.1 (212) | 47.9 (195) | 0.05 |
| Romantic relationship | 31.8 (297) | 58.9 (175) | 41.1 (122) | 10.60** |
| Phobia | 28.3 (264) | 49.6 (131) | 50.4 (133) | 0.65 |
| Trauma | 28.0(258) | 50.8(131) | 49.2(127) | 0.09 |
| Appearance | 25.0 (235) | 50.6 (119) | 49.4 (116) | 0.04 |
| Self harm | 24.6 (234) | 57.3 (134) | 42.7 (100) | 3.80 |
| Suicidal thoughts | 19.8 (190) | 47.4 (90) | 52.6 (100) | 1.59 |
| Physical abuse | 19.2 (184) | 56.0 (103) | 44.0 (81) | 1.61 |
| Child rearing | 18.8 (165) | 32.1 (53) | 67.9 (112) | 26.82 |
| Eating too much | 17.6 (169) | 58.6 (99) | 41.4 (70) | 3.99* |
| Substance addiction | 12.2 (118) | 85.6 (101) | 14.4 (17) | 62.17** |
| Physical disability | 12.1 (114) | 52.6 (60) | 47.4 (54) | 0.07 |
| Sexual abuse | 10.1 (96) | 37.5 (36) | 62.5 (60) | 7.80** |

**$p < 0.01$, * $p < 0.05$

Table 3 shows that wide range of psychological problems prevail among the respondents. Of which depression (69.5%) ranked the highest followed by anxiety (66.8%), study-related issues (64.5%), and anger (61.7%) problems. More than half of the respondents were suffering from personal stress (58.0%), pain of loss (54.8%), and fear (54.1%). A notable percentage of the respondents' had low self-esteem (46.9%). Having dispute (42.1%) or difficulty in romantic relationship (31.8%) were also common. Importantly, 28.0% of the respondent had experience of trauma. Similarly percentage of self-harm (24.6%), and suicidal ideation (19.8%) and sexual abuse (10.1%) were alarming.

Significant gender differences (Table 3) on several psychosocial problems were noted. Study-related issues (male: 55.9%; female: 44.1%) and anger problem (male: 55.8%; female: 44.2%) were significantly over-reported by male respondents, while fear (male: 47.9%; female: 52.1%) was more pronounced among female respondents. Similarly, conflict in romantic relationships (male: 58.9%; female: 41.1%), overeating (male: 58.6%; female: 41.4%) and substance abuse (male: 85.6%; female: 14.6%), were found to be more prevalent among males, while sexual abuse (male: 37.5%; female: 62.5%) was significantly higher for females.

The results of psycho-social problems by geographical locations presented in Table 4 shows that highest percentage (61.5-39.7%) of all reported psychosocial problems was from the respondents of Dhaka region.

**Table 4. Psycho-social problems among survey respondents by geographical location (n=982).**

| Problem faced | Sample | Division | | | $\chi 2$ |
|---|---|---|---|---|---|
| | | Dhaka | Rajshahi | Chittagong | |
| | % (982) | % (397) | % (301) | % (284) | |
| Depression | 69.5(672) | 45.2 (304) | 29.2 (196) | 25.6 (172) | 23.18* |
| Anxiety | 66.8 (633) | 47.1 (298) | 26.2 (166) | 26.67(169) | 28.23* |
| Study related | 64.5 (615) | 39.7 (244) | 29.4 (181) | 30.9 (190) | 2.15 |
| Anger | 61.7 (588) | 45.7 (269) | 25.9 (152) | 28.4 (167) | 16.68* |
| Personal stress | 58.0 (551) | 47.7 (263) | 27.2 (150) | 25.0 (138) | 20.73* |
| Pain of loss | 54.8 (529) | 45.0 (238) | 28.9 (153) | 26.1 (138) | 10.27 |
| Fear | 54.1 (520) | 41.5 (216) | 31.0 (161) | 27.5 (143) | 1.34 |
| Low self esteem | 46.9 (443) | 51.0 (226) | 24.6 (109) | 24.4 (108) | 33.15* |
| Dispute | 42.1 (407) | 57.0 (232) | 20.4 (83) | 22.6 (92) | 77.32* |
| Romantic relationship | 31.8 (297) | 52.5 (156) | 25.9 (77) | 21.5 (64) | 26.26* |
| Phobia | 28.3 (264) | 50.0 (132) | 23.5 (62) | 26.5 (70) | 13.43* |
| Trauma | 28.0 (258) | 51.9 (134) | 31.4 (81) | 16.7 (43) | 29.43* |
| Appearance | 25.0 (235) | 45.1 (106) | 34.7 (58) | 30.2 (71) | 4.56 |
| Self-harm | 24.6 (234) | 49.1 (115) | 29.1 (68) | 21.8 (51) | 10.41* |
| Suicidal thought | 19.8 (190) | 56.8 (108) | 22.6 (43) | 20.6 (39) | 24.90* |
| Physical abuse | 19.2 (184) | 52.2 (96) | 23.4 (43) | 24.5 (45) | 11.86* |
| Child rearing | 18.8 (165) | 50.3 (83) | 25.5 (42) | 24.2 (40) | 9.47 |
| Eating too much | 17.6 (169) | 39.6 (61) | 33.1 (56) | 27.2 (46) | .85 |
| Substance addiction | 12.2 (118) | 56.8 (67) | 26.3 (31) | 16.9 (20) | 16.32* |
| Physical disability | 12.1 (114) | 42.1 (48) | 37.7 (43) | 20.2 (23) | 6.18 |
| Sexual abuse | 10.1 (96) | 61.5 (59) | 24.0 (23) | 14.6 (14) | 19.79* |

.*$p < 0.01$

The percentage of respondents with all of the problems except study related, pain of loss, fear, appearance, child rearing, eating problem and physical disability, were significantly higher in Dhaka division than in both Rajshahi and Chittagong divisions (Table 4).

Closed questions focusing on the occurrence of suicidal ideation and attempt among the respondents in last six months was a specific area of enquiry. The findings are presented in Tables 5-6 by gender and geographical region, respectively.

**Table 5. Experience of suicidal thought and attempt in last 6 months by gender (n=979).**

| Incidence | Sample % (982) | Gender | | $\chi 2$ |
|---|---|---|---|---|
| | | Male % (509) | Female % (475) | |
| Suicidal thoughts | 12.1 (118) | 54.2 (64) | 45.8 (54) | 1.24 |
| Suicidal attempts | 5.5 (54) | 53.7 (29) | 46.3 (25) | 1.78 |

**Table 6. Experience of suicidal thought and attempt in last 6 months by division (n=979).**

| Incidence | Sample % (n) | Division | | | $\chi 2$ |
|---|---|---|---|---|---|
| | | Dhaka % (n) | Rajshahi % (n) | Chittagong % (n) | |
| Suicidal thoughts | 12.1 (118) | 61.0 (72) | 22.0 (26) | 16.9 (20) | 38.18* |
| Suicidal attempts | 5.5 (54) | 74.1 (40) | 11.1 (6) | 14.8 (8) | 53.07* |

.*$p < 0.01$.

The 12.1% of the total respondents reported that they had had suicidal thoughts in the past six months while 54 respondents (5.5% of the total) had attempted suicide. Gender difference was neither found for suicidal thoughts nor suicidal attempts. Nevertheless, significant regional difference was found in both matters; Dhaka polling the highest. Further probe into personal data revealed that most of the respondents who reported to have had suicidal ideation and/or attempted suicide in last six months were single and unemployed. Majority of them have completed Master Degree.

The reported psychosocial problems in this study portrayed a wide array of mental health issues starting with commonly reported depression, anxiety to day-to-day study related or child rearing issues among the respondents from all the three study sites. Dire predicaments like trauma (28%), physical (19.2%) and sexual abuse (10.1%), including drug abuse (12.2%), suicidal thoughts (19.8%) and self-harming behavior (24.6%) came into surface in the first hand report of the respondents regardless of the attached stigma and shame issue. Research showed that stigmatization and beliefs about causes of and

attitudes towards mental illness, consequences for help-seeking prevents people from help seeking behavior[16]. It is also imperative to note that 25% of the respondents cited 'appearance' as source of mental distress. Research has shown that increase importance of appearance aggravates the impact of negative appearance on being more self-conscious of look and social avoidance[21]. This suggests the adverse bearing of existing discrimination within the society. The study findings echoed the preceding researches to report depression (69.5%) and anxiety (66.8%) as the major mental health problem faced by the respondents. However, study related problem, anger issues notably appeared among more than 60% of the respondents, followed by personal stress, pain of loss and fear (54-58%). All these along with other identified psychosocial issues itself are perturbing as well as weigh up to the elevated estimate of depression and anxiety and/or resulting abuse and self-harming behavior. It is indeed essential to identify most prevalent problem for clinical purpose, however the underlying psychosocial factors that came up in this study do have significant impact on mental health. Numerous researches till to date have shown significant correlation of anxiety, depression and/or mental health with marriage, crisis, education, relationship and so on[9,22-25] . Sole or cumulative impact of these piled up fundamental day-to-day life concerns on psychological wellbeing cannot be ignored and need to take into urgent account to address mental health. Holistic view of mental health would positively reduce self-harm behavior like suicide and drug abuse as well as other harm like physical or sexual abuse.

Significant gender differences was present in the study; that is, male outweighing female in study (M: 55.9 %, F: 44.1%), romance (M: 58.9 %, F: 41.1%) and anger (M: 55.8%, F: 44.2%) related issues. Interestingly not only drug abuse (M: 85.6%, F: 14.4%) male preponderance was found on 'over eating behavior' (M: 58.6%, F: 41.4%) as an externalized unhelpful behavior pattern[26-28]. Opposite directional incline towards women was found for pain of loss (M: 4.1%, F: 50.1%) and sexual abuse (M: 37.5%, F: 60.5%). Comparative study findings are in line of previous research indicating gender differences and mental health[29-31]. This possibly reflect the psychosocial burden created by the prevailing gender role and stereotype attitude and behavior encouraged in the culture and society[32]. The bio-physiological difference in sex has been considered as a vital explanation for this gender gap[33]. Further enquiry and appraisal may reveal impending explanations to this crucial issue. However, this study pleas to note that manifestation of gender disparity is present beyond any doubt yet it is imperative to keep in mind that the both male and female are in a state of concern.

Psycho-social problems reported by respondents from different study sites represent that all of the problems were significantly higher in the metropolitan Dhaka in comparison to Rajshahi and Chittagong. This may be accounted to higher concentration of the people, and higher level of internal migration toward the capital city that may imply differential stresses level in urban area[31,34-37]. Regional differences were noted in

other researches showing a higher risk of mental disorder among persons living in urban[11,34]. Delving into the gravity of mental health problem signposted that both experiences of suicidal thoughts (12.1%) and attempts (5.5%) in last six months period was alarmingly and considerably more visible among male (54.2, 53.7%, respectively) compare to female (45.8, 46.3%, respectively). Keeping alliance with the reported findings on psychosocial problems, Dhaka division significantly had the highest suicidal thought (61%) and attempt (74.1%) than those for other divisions. Similar argument for urban preponderance in mental health may account for increase rate of suicidal ideation and attempt in Dhaka. Urbanization has its own toil on additional psychological problem due to difficult life situation and challenges in metropolitan area. From early dates suicide has been labeled as the most baffling social disease[38-39]. Numerous studies drew attention to various indicators of suicide including religious and cultural features[40-41]. Nevertheless, many are still unconsidered and new diverse evidences are added. This study reaffirms suicidal attempt and ideation as a dire indicator of poor mental health.

To conclude, the study purports mental health as major public health concern and mandate for a shift of focus from bio-clinical perspective to psychosocial standpoint of mental health concern. As an antidote to rapid social change relating to the evil of technological advancement, preserving psychological wellbeing of the individual is the utmost priority. Research is needed to translate strategies for closing the gap and to pave the path of prevention, recovery and cure[42]. Concentrated focus on mental health facilities in essential health care planning, and policy development is of prime necessity to remove the toxicity of life. By helping mind and body to walk in harmony one can turn the challenges into blessings.

## References

1. Starkey L 2011. Evaluating learning in the 21st century: A digital age learning matrix. Technol. Pedagog. Edu. **20**(1): 19-39, Mar. 2011, doi: 10.1080/1475939X.2011.554021.
2. WHO 2013. The world health report 2001 - Mental Health: New Understanding, New Hope. WHO, 2013.
3. WHO 2013. Mental Health Financing Mental Health Policy and Service Guidance Package, 2003.
4. Hossain, MM, MT Hasan, A Sultana and F Faizah 2019. New Mental Health Act in Bangladesh: unfinished agendas. The Lancet Psychiatry **6**(1): 1. Elsevier Ltd, p. e1, Jan. 01, 2019, doi: 10.1016/ S2215-0366(18)30472-3.
5. Monawar Hosain GM, N. Chatterjee, N Ara and T Islam 2007. Prevalence, pattern and determinants of mental disorders in rural Bangladesh. Public Health **121**(1): 18-24, Jan. 2007, doi: 10.1016/j.puhe.2006.06.018.
6. Prins MA, PFM Verhaak, JM Bensing and K van der Meer 2008. Health beliefs and perceived need for mental health care of anxiety and depression-The patients perspective explored. Clinical Psychol. Rev. **28**(6): 1038-1058, Jul. 2008, doi: 10.1016/j.cpr.2008.02.009.

7. Hossain MD, HU Ahmed, WA Chowdhury, LW Niessen and DS Alam 2014. Mental disorders in Bangladesh: A systematic review, BMC Psychiatry 14(1): 216, Jul. 2014, doi: 10.1186/s12888-014-0216-9.
8. WHO Bangladesh. 2019. *National Mental Health Survey of Bangladesh, 2018-2019 : Provisional Fact Sheet.* Retrieved from https://www.who.int/docs/default-source/searo/bangladesh/pdf-reports/cat-2/nimh-fact-sheet-5-11-19.pdf?sfvrsn=3e62d4b0_2
9. Ommeren, Mark van, Saxena, Shekhar and Saraceno Benedetto 2005. Mental and social health during and after acute emergencies : emerging consensus ? : Round Table / Mark van Ommeren, Shekhar Saxena and Benedetto Saraceno. Bull. World Heal. Organ. Int. J. Public Heal. **83**(1): 7,[Online]. Available: https://apps.who.int/iris/handle/10665/73006.
10. Giasuddin NA, NF Chowdhury, N Hashimoto, D Fujisawa and S Waheed 2012. Pathways to psychiatric care in Bangladesh. Social Psychiatry and Psychiatric Epidemiology: The International Journal of Research in Social and Genetic Epidemiology and Mental Health Services. **47**(1): 129-136. DOI: https://doi.org/10.1007/s00127-010-0315-y
11. Mullick MSI and Goodman R 2005. The prevalence of psychiatric disorders among 5-10 year old in rural, urban and slum areas in Bangladesh: An exploratory study. Soc. Psychiatry. Epidemiol. **40**(8): 663–671. DOI: 10.1007/s00127-005-0939-5.
12. Funk M, Drew N and Knapp M 2012. Mental health, poverty and development. J. Public Ment. Health. **11**(4): 166–185. DOI: 10.1108/17465721211289356.
13. World Health Organization, Geneva 2001. http://www.who.int/whr/2001/media_centre/press_release/en.
14. Herman H and Jané-Llopis E 2005. Mental health promotion in public health. Promot. Educ. **12**(2): 42–47. DOI: 10.1177/10253823050120020107.
15. Wahlbeck K. 2015. Public mental health: The time is ripe for translation of evidence into practice. World Psychiatry. **14**(1): 36-42. DOI: 10.1002/wps.20178.
16. Lauber C and W Rössler 2007. Stigma towards people with mental illness in developing countries in Asia. Int. Rev. Psychiatry. **19**(2): 157-178. DOI: 10.1080/09540260701278903.
17. Speechley M and KM Stavraky 2021. The adequacy of suicide statistics for use in epidemiology and public health. Can. J. Public Heal. **82**(1): 38–42. Accessed: Apr. 28, 2021. [Online]. Available: https://europepmc.org/article/med/2009484.
18. Tøllefsen IM, *et al.* 2015. Are suicide deaths under-reported? Nationwide re-evaluations of 1800 deaths in Scandinavia. BMJ Open. **5 (**11). DOI: 10.1136/bmjopen-2015-009120.
19. Barker C, Pistrang N and R Elliott 2002. *Research Methods in Clinical Psychology: An Introduction for Students and Practioners.*2nd ed. West Sussex: John Wiley and Sons.
20. Saunders M, P Lewis, A Thornhill and A Bristow 2012. *Research Methods for Business Students. Chapter 4: Understanding research philosophy and approaches to theory development*. 6th ed. London: Pearson Education Limited
21. Moss TP, V Lawson and P White 2014. Salience and Valence of Appearance in a Population with a Visible Difference of Appearance: Direct and Moderated Relationships with Self-Consciousness, Anxiety and Depression. PLOS One. **9**(2). DOI:10.1371/ journal. pone.0088435
22. Whisman MA 2007. Marital distress and DSM-IV psychiatric disorders in a population-based national survey. J. Abnor. Psychol. **116**(3): 638-643. https://doi.org/ 10.1037/0021-843X. 116.3.638.

23. Leach LS, P Butterworth, S Olesen and A Mackinnon 2013. Relationship quality and levels of depression and anxiety in a large population-based survey. Social Psychiatry and Psychiatric Epidemiology. **48**(3): 417–425. https://doi.org/10.1007/s00127-012-0559-9
24. Islam A, SA Effat, AB Yousuf and S Islam 2016. Depression of married women : Exploration of role employment status, marital satisfaction and psychological well-being. Dhaka Univ. J. Biol. Sci. **25***(*2): 113-121.
25. Evans TM, L Bira, JB Gastelum, LT Weiss and NL Vanderford 2018. Evidence for a mental health crisis in graduate education. Nature Biotechnol. **36**(3): 282-284. https://doi.org/10.1038/nbt.4089
26. Tronieri JS, CM Wurst, RP Pearl and KC Allison 2017. Sex Differences in Obesity and Mental Health. Current psychiatry reports. **19**(6): 29. https://doi.org/10.1007/s11920-017-0784-8
27. Negash S, C Agyemang, TE Matsha, N Peer, RT Erasmus and AP Kengne 2017. Differential prevalence and associations of overweight and obesity by gender and population group among school learners in South Africa: a cross-sectional study. BMC obesity. **4**(29). https://doi.org/10.1186/s40608-017-0165-1
28. Shaikh E and V Shinde 2018. Gender Differences in Internalized and Externalized Behavioral Problems among School Going Children. Indian J. Health and Wellbeing. **9**(4): 584-589. Retrieved from http://www.i-scholar.in/index.php/ijhw/article/view/181436
29. Elliott M 2001. Gender differences in causes of depression. Women & health. **33**(4): 163–177.
30. Zender R and E Olshansky 2009. Women's Mental Health: Depression and Anxiety. The Nursing clinics of North America. **44**(3): 355-64. DOI:10.1016/j.cnur.2009.06.002.
31. Del Amo J, I Jarrín, A García-Fulgueiras, V Ibáñez-Rojo, D Alvare, AMA Rodríguez, R García-Pina, A Fernández-Liria, VGarcía-Ortúzar, D Díaz, L Mazarrasa, MV Zunzunegui and A Llácer 2011. Mental health in Ecuadorian migrants from a population-based survey: The importance of social determinants and gender roles. Social Psychiatry and Psychiatric Epidemiology. **46**(11): 1143–1152. https://doi.org/ 10.1007/s00127-010-0288-x
32. Weich S, A Sloggett and G Lewis 1998. Social roles and gender difference in the prevalence of common mental disorders. British J. Psychiatry. **173**(6): 489-493. doi:10.1192/ bjp.173.6.489
33. Rössler AR 2017. Sex and gender differences in mental disorders. The Lancet Psychiatry. **4** (1): 8–9. DOI: 10.1016/S2215-0366(16)30348-0.
34. Bhugra D 2004. Migration and mental health. Acta Psychiatrica Scandinavica. **109** (3): 243-258. https://doi. org/10.1046/j.0001-690X.2003.00246.x
35. Smith KLW, FI Matheson, R Moineddin *et al.* 2007. Gender, Income and Immigration Differences in Depression in Canadian Urban Centres. Can. J. Public Health. **98** (2):149–153. https://doi.org /10.1007/BF03404328
36. Taloyan M, SE Johansson, J Sundquist, TO Koctürk and LM Johansson 2008. Psychological distress among Kurdish immigrants in Sweden. Scandinavian J. Public Health. **36**(2):190–196. https://doi.org/10.1177/1403494807085077
37. Galea S, M Uddin and K Koenen 2011. The urban environment and mental disorders: Epigenetic links. Epigenetics. **6**(4): 400–4. https://doi.org/10.4161/epi.6.4.14944
38. Schmid CF 1934. DUBLIN, LOUIS I. BESSIE BUNZEL. To Be or Not To Be: A Study of Suicide. pp. 443. New York: Harrison Smith and Robert Haas 1933. The ANNALS of the American Academy of Political and Social Science. **172**(1), 196–197. https://doi.org/10.1177/000271623417200172.

39. Probert-Lindström S, J Berge, Å Westrin, A Öjehagen and PK Skogman 2020. Long-term risk factors for suicide in suicide attempters examined at a medical emergency in patient unit: results from a 32-year follow-up study. BMJ Open. **10**(10). https://doi.org/10.1136/bmjopen-2020-038794
40. Redaniel MT, Lebanan-Dalida MA and Gunnell D. 2011. Suicide in the Philippines: time trend analysis (1974-2005) and literature review. BMC Public Health. **11**(536). https://doi.org/10.1186/1471-2458-11-536
41. Islam S and Z Borak 2012. Attitude and Behavior towards Suicide: Role of Counseling as Prevention. J. Advanced Laboratory Research in Biology. **3**(3): 217–223. Retrieved from https://e-journal.sospublication.co.in/index.php/jalrb/article/view/129
42. Insel TR 2009. Translating scientific opportunity into public health impact: a strategic plan for research on mental illness. Arch. Gen. Psychiat. **66**(2): 128-133. https://doi. org/10.1001/archgen-psychiatry.2008.540

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