

UNEMPLOYMENT AS A FACTOR OF SUICIDAL IDEATION IN HAZARA DIVISION (KP) PAKISTAN

S. Farhana Kazmi*

Tahir Pervez**

Naveed Sultan***

Roshaan Tahir****

Abstract

The main objective of the study was to explore the suicidal ideation among employed and unemployed persons. Total 150 participants were selected from the three different cities Haripur, Abbottabad and Mansehra of Hazara Division, through convenient sampling. The translated version of Beck Scale for Suicidal Ideation was used for data collection. The results revealed that there is a significant difference ($t=3.97$) between suicidal ideation of employed and unemployed individuals. Study offers various further directions to explore many related factors of suicidal ideation.

Key words : Unemployment, Suicidal ideation, Risk of suicide, Economic issues, social issues, Mental health, Social skills

* Department of Psychology Hazara University Khyber Pakhtoon Khawa(KP) Pakistan

** National Universities of Science and Technology (NUST -PMA Campus) Abbottabad, KP, Pakistan

*** MSc Psychology, Hazara University KP, Pakistan

**** Roshaan Tahir, Student MBBS

Introduction

Phenomena of suicide and suicidal ideation relate to many factors such as; social, psychiatric, psychological, physical, personal and familial (Evans, Hawton & Rodham, 2004). Technically the term suicidal ideation is referred to 'having the intent to commit suicide and making plans to commit suicide (Purse, 2011). However, most individuals with suicidal ideation do not ultimately commit suicide (Gliatto & Rai, 1999). Beck, Kovacs and Weismann, (1979) have inferred three meaningful factors in regard the suicide; active suicidal desire, specific plans for suicide and passive suicidal desire. Research findings indicate that developing suicidal behaviour depends on accumulative exposure to a series of social, family, personality and mental health factors (Fergusson, Woodward, & Horwood, 2000). Different models of suicide risk have been proposed that suicide is the result of an interaction between environmental determinants and individual personality characteristics (e.g., Johnson, Lall, Bonger, & Nordland, 1999; Gupta & Gupta, 1998). Suicidal thoughts and behaviors is often associated with; post traumatic stress disorder (Sivak, Swartz & Swenson, 1999), low self-esteem and higher levels of hopelessness (van Heeringen, & Vincke, 2000). Another study finds that financial hardships, legal stress, family difficulties, stress perception, depression, anxiety, pain and low material support, low self-esteem and external locus of control are significantly related to thoughts of committing suicide (Vilhjalmsson, Sveinbjarnardottir & Kristjansdottir, 1998). Study shows that depression and low self-esteem in the family context are independently associated with suicide ideation and attempts, whereas, low family self-esteem is significantly differentiate suicide attempters from ideators (Wild, Flisher & Lombard, 2004).

Studies reveals that unemployment is one of many factors that contribute to suicide ideation and suicide risk (e.g., Robert et al., 1995; Agerbo, Nordentoft & Mortensen, 2002; Mortensen, Agerbo & Erikson, 2000; Blakely, Collings & Atkinson, 2003). Durkheim (1968), 100 years ago, concluded that unemployment increased the social isolation, which further lead to the risk of suicide and he denied the association with the occurrence of mental disorders. Lately, it was empirically studied that the suicide-unemployment association differs among people who suffer from some mental disorder however, many studies have suggested no significant exists between both factors (Appleby & Dennehy, 1999; Powell, Geddes & Deeks , 2000).

Suicidal ideation, depression and suicide attempts have been significantly found associated with un-employment / economic burden (Johnson, Lall, Bonger & Nordland,1999),

panic disorders (Gupta & Gupta, 1998) and differences in BMI, both among women (i.e. increased BMI) and men, (i.e. lower BMI) (American Journal of Public Health, 2000).

Along with unemployment, many factors have been studied in association to the issue, such as; dissatisfaction with employment (Robert, et al., 1995), being single, previous suicide attempts, family history of suicide, substance abuse, divorce, serious medical illness (Mann et al., 2005; APA, 2003; Walrath et al., 2001; Crosby et al., 1999), mental disorders, history of psychopathology (Beautrais, 1999), depression, shame, avoiding pain and undesirable fate (Gliatto, Michael, Rai & Anil, 1999). Even bullying behavior among the adolescents were also related with an increased risk of depression and suicide (Kaltiala-Heino, Rimpelä, Marttunen, Rimpelä, Rantanen, 1999). Studies have also indicated that stress factors may trigger a suicidal act only among those who are vulnerable with reference to their personality (e.g., Mann et al., 1999 ; Platt & Hawton, 2000). Pharmacological studies show that "S" allele plays a role in the background of violent suicide. Neuroticism, affective temperaments, and impulsive aggression have been found to be associated with both the "S" allele and suicidal behaviour (Gonda, et al., 2011) and suicidal behaviour runs in families. Another research reveals that the transmitted spectrum of suicidal behavior includes attempts and completions, but not ideation (Brent, Bridge, Johnson & Connolly, 1996).

Risk factor has been found two to four times more among unemployed people (Hockensmith, 2009). Blakely (2003) estimated that relative risk of suicide among the unemployed is higher than the mental illness. A follow-up study of suicide in London by Sainbury (1955) has suggested that loss or lack of unemployment increase the act of suicide. Badeel (2009) reported that 12000 young men in Egypt committed suicide in the last 4 years and the main cause was high levels of unemployment. Robert (1995) also found a significant association between dissatisfaction with employment and suicidal ideation. Blakely, Collings & Atkinson (2003) argued that incidents of suicide were almost the same within the most socio economically deprived and the least deprived areas.

Though the rates of suicide ideation varied widely by country but the rates of suicide attempts are consistent across most countries. The lifetime prevalence rates/100 for suicide ideation ranged from 2.09 (Beirut) to 18.51 (New Zealand). This variation is only associated with the in rates of psychiatric disorders, divorce or separation among countries and is probably due to cultural features that yet to understood (Weissman, 1999). Suicide rate has been studied

higher in rural populations than urban populations (Handley, Inder, Kelly, Attia, & Kay-Lambkin, 2011).

Worldwide over 800000 deaths per year have been counted by suicide (WHO, 2002). A summary of evidences for the US preventive service task force reports that approximately 500,000 individuals required emergency treatment in US medical centers following attempted suicide (Gaynes et al, 2004). Suicidal ideation can be estimated in USA through the calls made to "the national suicide prevention lifeline" - a nationwide toll-free hotline, which is an alarm to the state machinery. In Jan. 2007, as the recession started, there were 13,423 calls to. A year later, there were 39,467. In Aug. 2009, the call volume peaked at 57,625. In 2009 USA government granted the group an extra \$1 million to increase programs in places with high unemployment rates (Lowrey, 2010).

Looking at the present situation of Pakistan, where, population is expanding, terrorism is at peak and unemployment is raising and 60% of Pakistanis are living below the poverty line. All it increase the feeling of helpless which further cause to depression and suicidal attempt and ideation among the public (Khan & Hyder, 2006). Studies indicate that that there are no official statistics on suicide in Pakistan (Khana , Naqvi , Thavera & Prince, 2008). In Pakistan many people avoid going to these government hospitals for fear of harassment by the police and stigma. Information on suicide in Pakistan comes from a number of sources including newspapers, reports of NGOs, voluntary and human rights organizations and police departments of different cities (Khan, 1998). Further information is available from hospital based studies e.g., on acute intentional poisoning (Shah, Hussain & Arif, 2006) deliberate-self harm, (Shahida &Hyderb, 2008) and autopsies carried out by Forensic Medicine departments (Bashir, Hussain & Saeed, 2003).

Reports indicate that almost 80 people attempted suicide in year 2009. In 2008 rate of suicide reported two persons per 100,000 for Pakistan, which is significantly lower than the global rate of 14 persons per 100,000 (WHO, 2010). Epidemiological study conducted from 1995 to 2004 on suicide in six cities of Pakistan indicates that crude rates per year per lac are: 0.43 in Peshawar, 2.86 in Rawalpindi, 2.1 in Karachi, 1.08 in Lahore, 1.12 in Faisalabad and 2.6 in Larkana (Khan , Naqvi, Thavera, & Prince, 2008). Studies reveal that suicidal attempts are more common among younger age group and females (Mann et al., 2005; Walrath et al., 2001; Crosby et al.,1999). However, in Pakistan rate is high among male (i.e., 5.2/100,000) and low

among female (i.e., 1.7/100,000). Vulnerable age has been noted 20-40 years (i.e. 7.03/100,000) (Khan, Naqvi, Thavera, & Prince, 2008).

Strategies to reduce the incidence of suicide among young people include; crisis management, self-esteem enhancement, development of social skills and healthy decision making. Ideally, mental health and suicide prevention programs are needed to be integrated within the primary health care system (World health report, 2000). It seems quite interested phenomenon that despite a dramatic increase in treatment, no significant decrease occurred in suicidal thoughts, plans, gestures, or attempts in the United States during the 1990 to 2003 (Kessler, Berglund, Borges, Nock, & Wang, 2005). However, to reduce risk factors the proper psychiatric intervention have been found effective in reducing suicidal ideation, regardless of depression severity (Martha , et al., 2004). James (2004) and Koppel (2004) also have concluded that the effective intervention reduces the suicidal ideation and depression. Crisis intervention centers and suicide prevention telephone hotlines play an important role in helping suicidal people, as shown in neighboring Sri Lanka (Ratnayeke, 1996). There is a need to establish such services in Pakistan.

Research Methodology

Objective of the study

Main focus of this study was to measure the suicidal ideation among among the unemployed adults of Hazara Division Khyber Pakhtoons Khawa, Pakistan. A group of employed adults were also included to make comparison.

Sample of the study

In technical sense a person is unemployed when he is able and willing to work but state machinery fails to provide him work for his livelihood (International Labour Organization, 2009). The same sense was employed in the present survey. Convenient sampling technique was used in order to collect the data from three cities Abbottabad, Haripur and Mansehra of Hazara division KPK (Pakistan) where education rate is high as compare to other cities of Hazara. From each of the city 25 employed and 25 unemployed persons were included in the study to compose a total sample of 150 participants. Employed individuals were; bankers, teachers and NGO's workers. Whereas, unemployed were; those who applied for job in different NGOs, local private

organizations, shops and schools. All the participants belonged to the low middle class socio-economic back ground. Education level of the participants was from Matric (Secondary school) to BA/BSc (14 years of education) with age range was 19 to 30 years.

Research Instrument

Beck Scale for Suicidal Ideation (BSSI) (Beck, Kouacs, and Weissman, 1979) translated Urdu version (Ayub, 2004) was used. It consists of 19-items to evaluate the intensity of a person's attitude, behaviors and suicidal ideations. It quantifies and assesses the current conscious suicidal intent by scaling various dimensions of self-destructive thoughts or wishes. The scale was used in interview form with employed individuals and in self-report form with unemployed individuals. The original alpha reliability coefficient of BSSI is 0.89 and alpha reliability coefficient for the present sample is 0.96 (Table 1).

The items of BSSI are rated on 3-point scale with the scoring of 0 for 'always', 1 for 'often', and 2 for 'never'. The total score range on the scale is from 0 to 36 where higher scores reflect presence and intensity of suicidal ideation. The first three questions address 'death ideation' (DI) by asking the participants if they wished to live, wished to die, and the extent to which one overweighs the others. Questions 4 and 5 refer more specifically to 'suicidal ideation' (SI). The participants are asked if they have thought of taking their lives, either by active or passive means. The following 13 questions are to be attempted only if any or both of the questions 4 and 5 were answered in some affirmative choice towards suicide. These questions examine the severity of 'suicidal ideation' and are concerned with frequency, duration, and the participant's attitude towards suicidal thoughts.

Procedure of the study

The data was collected from employed individuals at their employment places and BSSI was distributed to collect the data in interview fashion from volunteer employees. Whereas, data collection from unemployed individuals were quite difficult job as they were not present at one place. Lists of all these unemployed individuals were collected from different selected organizations; schools, NGOs and different local private organizations and shops where these individuals have applied for jobs. At first stage they were contacted on telephone to know their

consent to participate in the study. At 2nd stage they were posted questioners including detail guidance to fill up the BSSI. Approximately 20 % of the unemployed participants did not send back the questionnaires or not filled up properly, which were not included in the study. Participants were ensured the confidentiality of their responses.

Results

Results of the study have been summarized in Table 1 and Table 2. The results revealed that there is a significant difference between suicidal ideations of unemployed ($t=3.970$, $M=9.26$, $SD=7.17$) and employed ($M=5.32$, $SD=4.92$).

Table 1. Alpha Reliability Coefficient for BSSI (Urdu) (N= 150)

Variable	No. of Items	Reliability Coefficient
BSSI (Urdu)	19	0.96

Table 1 shows the alpha coefficient for BSSI. Results show that alpha coefficient for suicidal ideation is 0.96 which indicates that scale is highly reliable.

Table 2. Difference between employed and unemployed in suicidal Ideation (N=150)

	Employed (n=75)		Unemployed (n=75)		t
	M	SD	M	SD	
Suicidal Ideation	5.32	4.92	9.26	7.17	3.97

df= 148; **p<0.001

Table 2 shows that there is significant difference between the scores of employed and unemployed individuals on Suicidal Ideation scale.

Discussion

The main objective of the study was to explore the suicidal ideation among unemployed persons. Study hypothesized that there is association between suicidal ideation and unemployment, which was upheld. The results revealed that there was a significant difference between suicidal ideations of unemployed ($t=3.97$, $M=9.26$, $SD=7.17$) and employed ($M=5.32$,

SD=4.92; e.g., Table 2). Present findings have the support of previous researchers which have conceded that that unemployment is one of many factors that contribute to suicide ideation and suicide risk and loss or lack of unemployment predisposed to suicide (e.g., Robert et al., 1995; Agerbo, Nordentoft & Mortensen, 2002; Mortensen, Agerbo & Erikson, 2000; Blakely, Collings & Atkinson, 2003 Badeel, 2009; Wilson, 2009). Results also coincide the findings of Platt and Hawton (2000) and Hockensmith (2009). Results are similar to the findings of Vilhjalmsson, Sveinbjarnardottir and Kristjansdottir (1998) who have inferred that financial hardship, family difficulties, low self-esteem and external locus of control are significantly related to suicidal ideation. Present findings also agreed with the conclusion of Claussen (1998) who asserted that unemployed individuals manifested clinically significant suicidal ideation. Similarly, the present study provides the same evidences as Johnson, Lall, Bongor and Nordland (1999) proposed that suicide had association between environmental determinants. Result also favor Aziz and Awan (1999) who have confirmed strong association between poor socio-economic conditions and suicide in Pakistan.

Conclusion

The study concludes that there is significant positive relationship between unemployment and suicidal ideation among the adults of Hazara region of Pakistan. Both unemployed and employed individuals showed varied degree of social skills to respond environmental stressors. Unemployment has significant effect upon the minds of these persons who are able to work but they fail to get job. It grounds to develop suicidal ideation and subsequently high risk of suicide attempt. Provision of a justice based economic system may reduce the incidence of suicide ideation and suicide among the young people. Further, development of comprehensive psychological intervention plans, at all district Head Quarter hospitals of KPK may also play a pivotal role to reduce this factor. Psychological intervention can guarantee to provide effective crisis management, enhance self-esteem, can develop of social skills and healthy attitude and approach among the effected youth.

References

- Agerbo, E., Nordentoft, M. & Mortensen, P. B. (2002). *Familial, psychiatric, and socioeconomic risk factors for suicide in young people: nested case-control study*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC117126/>
- Ahmad, A. & Khan, S. R. (2005). *Assessment of root causes of suicide cases among women in Ghizer District of Northern Areas of Pakistan (during 2000-2004)*. doi /abs /10 .1521 /suli. 2009.39.2.227
- American Journal of Public Health*, (2000). Relationships between obesity and DSM-IV major depressive disorder, suicide ideation, and suicide attempts: results from a general population study. 90,2): 251-257. doi: 10.2105/AJPH.90.2.251
- Appleby, L., Dennehy, J. A., Thomas, C.S., Faragher, E. B. & Lewis Glyn (1999). After care and clinical characteristics of people with mental illness who commit suicide: a case-control study. *The Lancet*, 353, (9162), 1397 -1400. doi:10. 1016/S0140-6736(98)10014-4.
- Aziz, K., Awan, N. R. (1999). Pattern of suicide and its relationship to socio-economic factors/depressive illness in the city of Lahore. *Pakistan Journal Medical Sciences*.15 (4), 289-94.
- Badeel, E.L. (2009). Unemployment caused 12000 suicides in 4 years. *Egypt and beyond, Scribbles of a Swedish journalist in Cairo*. Retrieved from <http://scandegyptblogspot.com/2009/02/report-unemployment-caused-12000.html>
- Bashir, M. Z., Hussain, Z. and Saeed. A. (2003). Suicidal deaths; assessment in Peshawar as cited in Khan, M. M (2007.) *Suicide Prevention in Pakistan: an impossible challenge?* Journal of Pakistan Medical Association, 57, (10). Retrieved from http://www.jpma.org.pk/full_article_text.php?article_id=1218
- Beautrais, A. L. (2000). Risk factors for suicide and attempted suicide among young people. *Australian & New Zealand Journal of Psychiatry*. 34, (3), 420-436 doi: 10.1080/j.1440-1614.2000.00691.x
- Beck, A. T., Kovacs. M.& Weissman, A. (1979). Assessment of suicidal intention-scale for suicidal ideation. *Journal of consulting and clinical psychology*, 47(2), 343-352. doi: 10.1037/0022-006X.47.2.343.
- Blakely, T. A., Collings, S. C.& Atkinson, J. (2003). *Unemployment and suicide*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1732539/>

- Botega, N. J., Barros, M. Berti de, A. O. Helenice, B. de, D. P., Marín-León L. (2005). Suicidal behavior in the community: prevalence and factors associated with suicidal ideation. *Revista Brasileira de Psiquiatria*; 27(1): 45-53. doi.org/10.1590/S1516-44462005000100011
- Brent, D. A., Bridge, J., Johnson, B. A., Connolly, J. (1996). A controlled family study of adolescent suicide victims. *Archives of General Psychiatry*;53(12):1145-1152. <http://archpsyc.ama-assn.org/cgi/content/abstract/53/12/1145>
- Claussen, B. (1998). Suicidal ideation among the long-term unemployed: A5-year follow-up. *Acta Psychiatrica Scandinavica*. 98(6). 480–486. doi:10.1111/j.1600-0447.1998.tb10123.x .
- Coyne, J. C.. (2004). Interventions for treatment of depression in primary care . *Journal of American Association*. 291(23):2814.doi: 10. 1001/jama.291.23.2814-a
- Crosby, A. E., Cheltenham, M. P. & Sacks, J. J. (1999). Incidence of suicidal ideation and behavior in the United States. *Archives of general psychiatry*, 56, 617-626. Retrieved from <http://www.priory.com/pme/htm>
- Daily Times. (2010, November 18). *Muslim ountries have a very low or zero suicide rate and the reasons are Religious Restriction and Lack of data*. Retrieved from <http://www.dailytimes.com.pk/default.asp>
- Durkheim, E. (1968). *Sjalvmordet: En av sociologiens stora klassiker (Translation of 'Le Suicide')*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1732535/pdf/v057p00560.pdf>
- Evans, E., Hawton, K., Rodham, K. (2004). Factors associated with suicidal phenomena in adolescents: A systematic review of population-based studies. *Clinical Psychology Review*.24, (8), 957–979. doi:10.1016/j.cpr.2004.04.005
- Fergusson, D. M. , Woodward, L. J. and Horwood L. J (2000). Risk factors and life processes associated with the onset of suicidal behaviour during adolescence and early adulthood. *Psychological Medicine*. 30 , (1), 23-39. <http://journals.cambridge.org/action/displayAbstract>
- Gaynes, B. N., West, S. L., Ford, C. A., Frame, P., Klein, J. & Lohr, K. N. (2004). Screening for suicide risk in adults: a summary of the evidence for the us preventive service task force. *Annals of Internal Medicine*. 140 (10), 822-835. Retrieved from <http://>

www.ispub.com/ostia/index.php

- Gliatto, F., Michael, J., Rai, A. & Anil, K. (1999). Evaluation and treatment of patients with suicidal ideation. *American Family Physician*, 59(6), 45-78. Retrieved from <http://www.aafp.org/afp.html>
- Gliatto, M. F., Rai, A., K., (1999). Evaluation and treatment of patients with suicidal ideation *American Family Physician*; 59(6):1500-1506. <http://www.aafp.org/afp/1999/0315/p1500.html>
- Gonda, X. et al., (2011). The possible contributory role of the S allele of 5-HTTLPR in the emergence of suicidality. *Journal of Psychopharmacology*. 25 (7) 857)-866 doi: 10.1177/0269881110376693
- Gupta and Gupta (1998). Depression and suicidal ideation in dermatology patients with acne, alopecia areata, atopic dermatitis and psoriasis. *British Journal of Dermatology*, 139: 846–850. doi: 10.1046/j.1365-2133.1998.02511.x
- Handley, T. E., Inder, K. J., Kelly, B. J., Attia, J. R. and Kay-Lambkin, F. J. (2011), Urban–rural influences on suicidality: Gaps in the existing literature and recommendations for future research. *Australian Journal of Rural Health*, 19: 279–283. doi: 10.1111/j.1440-1584.2011.01235.x
- Hockensmith, D. (2009). *Study shows relationship between suicide rate and unemployment*. Retrieved from <http://connect.pennlive.com/user/dhock/index.html>
- International Labour Organization. (2009). *Resolution concerning statistics of the economically active population, employment, unemployment and underemployment*. Retrieved from <http://www.ilo.org/public/english/bureau/stat/download/res/ecacpop.pdf>.
- Johnson, R. C., Lall, A., Bonger, D. N. & Norlamd, D. (1999). Maintenance electroconvulsive therapy and cognitive function. *British Journal of Psychiatry*. 170 (3). 285-287. doi: 10.1192/bjp.170.3.285
- Kaltiala-Heino, R. Rimpelä, M. Marttunen, M. Rimpelä, A., Rantanen, P. (1999). Bullying, depression, and suicidal ideation in Finnish adolescents: school survey. *British Medical Journal*. 1999; 319 doi: 10.1136/bmj.319.7206.348
- Kessler, R. C., Berglund, P., Borges, G., Nock, M., Wang, P. S. (2005). Trends in suicide ideation, plans, gestures, and attempts in the united states, 1990-1992 to 2001-2003. *Journal of American Medical Association*. 293(20):2487-495. doi:10.1001/jama. 293. 20.2487

- Khan, M. M.& Hyder, A. A. (2006). Suicides in the developing world: case study from Pakistan. *Suicide Life Threat Behavior*. 36, 76-81. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16676628>
- Khan , M. M., Naqvi, H., Thavera, D.& Prince, M. (2008). Epidemiology of suicide in pakistan: determining rates in six cities. *Archives of Suicide Research*. 12, (2), 155 – 160. doi: 10.1080/ 13811110701857517
- Koppel, J. (2004). Interventions for treatment of depression in primary care. *Journal of American Medical Association*. 291(23):2814.doi:10.1001/jama.291.23.2814-b
- Lowrey, A. (2010)Death and Joblessness. *The Washington Independent*. Retrieved on 18 Jan 2012, from <http://washingtonindependent.com/94925/death-and-joblessness>.
- Mann, J. J., et al. (2005). Suicide prevention strategies. *Journal of the American Medical Association*. 294 (16), 2064-2074. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16249421>
- Mann, J., et al. (1999). *The Genetic Basis for Suicidal Behavior*. Retrieved from <http://www.psychiatrytimes.com/display/article/10168/52551>
- Martha L. B. et al., (2004). Reducing suicidal ideation and depressive symptoms in depressed older primary care patients. *Journal of American Medical Association*. 291(9):1081-1091. doi: 10.1001/jama.291.9.1081
- Mortensen, P.B., Agerbo, E.& Erikson, T. (2000). Psychiatric illness and risk factors for suicide in Denmark. *Work and Occupation*, 355, 9-12. Retrieved From <http://bjp.rcpsych.org/cgi/187/3/206>
- Mościcki, E.K., (1997). Identification of suicide risk factors using epidemiologic studies. *Psychiatric Clinics of North America*. 20, (3), 499-517. doi:org/S0193-953X(05)70327-0
- Nafees, M. (2010). *Suicide trends in rich and poor countries*. Retrieved from <http://www.dailytimes.com.pk/default.asp?>
- Nayyab. (2010). *Increasing rate of suicide in Pakistan*. Retrieved from <http://nayyab.wordpress.com/2010/01/18/increasing-rate-of-suicide-in-pakistan/>
- Pearson, V., Phillips, M. R., He, F.& J, H. (2002). Attempted suicide among young rural women in the People’s Republic of China: Possibilities for prevention. *Suicide and Life Threatening Behavior*, 32(4), 359-369. Retrieved from [http:// www.suicideinfo.ca/csp/ assets/alert67.pdf](http://www.suicideinfo.ca/csp/assets/alert67.pdf)
- Platt. S. & Hawton, K. (2000). Suicidal behaviour and the labor market. *British Journal of*

- Psychiatry*, 6, 177-484. Retrieved from <http://bjp.rcpsych.org/cgi/reprint/177/6/484.pdf>
- Powell, J., Geddes, J. & Deeks, J. et al. (2000). Suicide in psychiatric hospital in-patients. Risk factors and their predictive power. *British Journal of Psychiatry*, 176, (3). 266-272. Retrieved from <http://bjp.rcpsych.org/cgi/abstract/176/3/266>
- Purse M., (2011). Suicidal ideation. *About.com Guide*. Retrieved on 19 January 2012, from <http://bipolar.about.com/od/suicide/g/suicidalideatio.htm>
- Ratnayeke, L. (1996). *Suicide and crisis intervention in rural communities in Sri Lanka*. 17(51), 149-154. Retrieved from http://www.irdsrilanka.org/ird/Deliberate_Self_poisoning.php
- Goldney, R. D., Winefield, A. H., Tiggemann, M., Winefield, H. R., (1995). Suicidal ideation and unemployment: A prospective longitudinal study. *Archives of Suicide Research*. 1 (3),175 – 184. doi:10.1080/13811119508251956.
- Sainsbury, P. (1955). *Suicide in London*. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1944419/pdf/brmedj02364-0017a.pdf>.
- Shah, M. M., Hussain Z., Arif, A. J. (2006). Spectrum of forensic toxicological analysis at Khyber Medical College Peshawar. *Pakistan Journal of Med Research*, 45(2). Retrieved from <http://www.pmrc.org.pk/forensic.htm>
- Shahid, M., Hyder, A. A. (2008). Deliberate self-harm and suicide: a review from Pakistan. *International Journal of Injury Control and Safety Promotion*. 15, (4), 233 – 241. doi: 10.1080/17457300802149811
- Sivak, J. Swartz, J. L., Swenson, D. X. (1999). PTSD And Chronic Suicidal ideation: the role of counter suicidal cognition. *Traumatology*. 5,(3):1-6. doi: 10.1177/153476569900500301
- van Heeringen, C., and Vincke, J. C. (2000). Suicidal acts and ideation in homosexual and bisexual young people: a study of prevalence and risk factors. *Social Psychiatry and Psychiatric Epidemiology*. 35, (11): 494-499, doi: 10.1007/s001270050270
- Vilhjalmsson, R., Sveinbjarnardottir, E., and Kristjansdottir, G. (1998). Factors associated with suicide ideation in adults. *Social psychiatry and psychiatric epidemiology*. 33, (3), 97-103, doi: 10.1007/s001270050028
- Walrath, C. M., et al., (2001). Suicide attempts in the comprehensive community mental health services for children and their families program. *Journal of the American Academy of Child and Adolescent Psychiatry*, 40(10), 1197-1205. Retrieved from http://datatrends.fmhi.usf.edu/datatrends_archive.html

- Weissman, M. M. (1999). Prevalence of suicide ideation and suicide attempts in nine countries. *Psychological Medicine*, 29 , pp 9-17 <http://journals.cambridge.org/action/displayAbstract>.
- Weissman, M., M. Klerman, G. L., Markowitz, J. S., and Ouellette, R., (1989). Suicidal ideation and suicide attempts in panic disorder and attacks. *New England Journal of Medicine*. 2, (321):1209-1214. <http://www.nejm.org/doi/full/10.1056/NEJM198911023211801>
- Wild, L.G., Flisher, A.J., Lombard, C.(2004). *Suicidal ideation and attempts in adolescents: associations with depression and six domains of self-esteem. Journal of Adolescence*. 27, (6). 611–624. doi:org/10.1016/j.jabb.2011.03.031
- Wilson, A. (2009). *Unemployment can triple the risk of suicide: A bad economy increases the number of suicides*. Retrieved from <http://www.suite101.com/content/unemployment-can-triple-the-risk-of-suicide-a106707>
- World Health Organization. (2002). *The world health report 2002: Reducing risks, promoting healthy life*. Retrieved from http://www.who.int/mental_health/prevention/suicide/country_index.html
- World Health Organization. (2009). *Suicide rate in Lithuania*. Retrieved from http://www.who.int/mental_health/pdf.
- World Health Organization. (2010). *Muslim countries have a very low or zero suicide rate and the reasons are religious restriction and lack of data*. Retrieved from <http://www.dailytimes.compk/default.asp>.
- World health report (2000). *Health systems: improving performance: Geneva, World Health Organization 2000*. Retrieved from <http://www.who.int/inf-pr-2000/en/pr2000-44.html>