REVIEWARTICLE

SOCIAL SUPPORT AND SUICIDE

Dr. P.N. Suresh Kumar

A body of research in recent years has focused on social support in maintaining the emotional well-being and moderating the effects of adverse life events. Social support is provided by networks comprised of family, relatives, friends, neighbors and co-workers, especially when the interaction is positive. So far, little attention has been paid to the role of social support in suicide. Although considerable literature has linked social support and suicidal ideation, few studies have considered the relationship between social support and suicidal behaviour with any specificity. There is evidence from comparative studies that social support systems have been disintegrated among suicide attempters compared with non-suicidal individuals (Rutter & Soucar, 2002).

Variables used in social support studies

The variables used in measuring social support include marriage, living alone, interaction between family members, recent moves, number of close friends, and other variables relating to change in social integration. Though personal networks may provide social support that help to maintain emotional well-being and buffer the effect of adverse life events, it can have a direct, independent effect on mental health irrespective of presence or absence of stressful life events (Paykel et al, 1980).

Living alone status

Studies have provided evidence of excess living alone varying from 22-25% among suicide completers compared with living controls (Barraclough & Pallis, 1975). Single marital status (Tyssen et al, 2001), lacking a partner (Stocks & Scott, 1991), unavailability of confidant (Clarke et al, 2004), are cited as risk factors for suicide in many studies. Bunch et al (1971) in a controlled study with living controls reported that marriage protects against suicide in recent maternal bereavement. Same author in another study (1972) also found that suicide victims visit their relatives less frequently than controls and have poor social support after bereavement. More suicide victims were left living on their own or in hotels after bereavement.

Few studies have looked at the age differences in living alone in suicide have shown that living alone has been more common among older suicides. Rich et al (1986) who compared the living alone status found that 45% of older suicides (above 50 years) as against 8% of young suicides (below 30 years). Looking at gender difference in social support, Rorsman (1973) found that more female suicides (50%) than living controls (16%) were living alone. Interestingly, in this study there was no difference in social support among males. In Heikkinen et al's study (1994) living alone was more common among female victims. Females had complained of loneliness more often than males. Those females who had lived alone had encountered a recent death more often than other females. The male victims who had lived alone had experienced separation, financial trouble, and unemployment during the last 3 months more fre-

Dr. P.N. Suresh Kumar, MD, DPM, DNB, PhD, Consultant Psychiatrist
Malabar Institute of Medical Sciences, Calicut

quently than other males, suggesting a concurrent stressor effect of these recent life events with living alone in male suicides.

Opposing the popular belief, in some studies social isolation has not been reported to be more common among elderly suicides. In the study by Osvath & Fekete (2001) high proportion of elderly attempters were living in the family with other relatives or in nursing home. Heikkinen & Lonnqvist (1995) have also reported similar proportion of persons living alone and reports of loneliness across all age groups.

Recent move

Sainsbury (1973) reported that more suicide victims (40%) than controls (12%) moved within 2 years and movers were more often single, widowed, child less and living alone. In a comparative analysis of social stress (Hangnell & Rorsman, 1980) between suicide victims and living controls, move in last year was more common among suicides (32%) than controls (13%).

Social network

There is evidence that social networks among suicide attempters are weaker than non-suicidal individuals (Hart et al 1988). Social network of people who attempted suicides was investigated by Magne-Ingvar et al (1992). They found that very few suicide attempters had a well functioning relationship and two thirds had problems in their occupational situation. Divorced partners had unsatisfactory social interaction compared with those who were married or co-habiting with those who were single or widowed. Heikkinen et al (1993) reported disintegration of social networks and poor social support associated with suicide. Perez-Smith et al (2002) reported higher levels of suicidality among adolescents who lived in neighborhood with weak social networks. Dennis et al (2005) reported poor social network in depressed older adults with self harm compared to same aged depressed older adults with no self harm.

Friends

Regarding completed suicide, many studies reported fewer friends and a lower level of social support (Turvey et al, 2002). Another study (Maris, 1992) has reported that half of suicides had no close friends compared with one third of natural deaths. Suppapitiporn et al (2005) reported that depressed patients who attempted suicide had fewer friends and a lower level of social support. Veiel et al (1988) reported crucial difference between the attempters and the controls in the number of friends with whom the subject had agreeable everyday interactions and in the number of kin that provided crisis support, both psychological and instrumental.

Thompson et al (2002) have demonstrated a mediating role for social support from friends and family and perceived effectiveness at obtaining resources in reducing suicide attempt. Nisbet (1996) suggests that finding emotional and psychological support in friends and family members helps to safeguard against suicide. The most substantial finding of this study was that for all sex/race categories, seeking support from friendship and familial resources in negatively related to attempted suicide where as seeking support from professional resources is associated with an increase in the likelihood of suicide attempt. This may be due to serious emotional disturbances in the later group.

Bearman & Moody (2004) reported that having had a friend who committed suicide increased the likelihood of suicidal ideation and attempts for both boys and girls. Female adolescents' suicidal thoughts were significantly increased by social isolation and friendship patterns in which friends were not friends with each other. In terms of friendships, more females had a close friend, where as more males had friends sharing common interests (Heikkinen et al, 1994). Conversely, same author in another study (Heikinen et al, 1995) reported similar proportion of availability of confidants and friends with common interests across all age groups in suicide. According to him living

alone and diminished opportunity for social interaction were not common factors in late life suicides.

Family

Many studies have reported (Marion & Range, 2003) negative correlation between family support and suicide. Same time studies have reported (O'Donnell et al, 2004) protective effect of family cohesion, family closeness and family friendship in suicide attempt. Parental child-rearing regime characterized by control and a lack of sufficient maternal and paternal social support is also cited as risk factor for adolescent suicide (De Man et al, 1993). In an assessment of sheltered homeless adults (Schutt et al, 1994), it was reported that perceived social support lessens distress and suicidal thoughts directly and also buffers homeless persons from the distress associated with traumatic experiences. Distress was found to directly increase the suicidal thought and also in interactions with low levels of social support. Hirsch & Ellis (1995) examined the effects of family support and demographics of suicidal behaviour in adult subjects. This study revealed that the type of primary care giver a person reported having while growing-up is significantly related to serious suicidal ideas, as they were more common among single parent households. This suggests that suicidal behaviours may occur due to complex interaction between social factors and childhood care. The influence of living in a single parent home may contribute to whether or not the person considers suicide.

Religious beliefs

Among many protective factors that mitigate the risks of suicide, religiosity is very important and this has been found to counter many stressors in the population. Kirmayer et al (1998) reported regular church attendance as negatively associated with attempted suicide in youths. Van Ness & Larson (2002) in a review of the relationship between religiousness/spirituality and mental health reported an inverse association of religiousness with suicide. An inverse relationship has been observed between suicidal behaviour and satisfaction with religious beliefs in adolescents with psychiatric disorders (Jarbin & Von Knorring, 2004). In a study of natural deaths in adults aged 50 and over, participation in religious activities does appear to reduce the odds of the occurrence of suicide (Nisbet et al, 2000). This effect remains significant even after controlling the effect of age, sex, race, marital status and frequency of social contacts. Dervic et al (2004) reported that religiously unaffiliated subjects had significantly more lifetime suicide attempts and more first-degree relatives who committed suicide than subjects who endorsed a religious affiliation. Unaffiliated subjects were younger, less often married, less often had children, and had less contact with family members. Furthermore, subjects with no religious affiliation perceived fewer reasons for living, particularly fewer moral objections to suicide.

Migration

Immigrants have higher rate of suicidal behavior than those in their countries of origin and their new countries. Immigration is a stressful life event, which may lead to depression and suicidal behavior (Hovey, 2000). Chandrasena et al (1991) in their study on suicide among immigrant psychiatric patients in Canada noted that foreign-born patients who had come to Canada for family or economic reasons but were unemployed, with poor social integration are at risk of suicide. Sher (1999) has suggested that most immigrants who exhibit suicidal behavior in the new country had suicidal tendencies, and/or some degree of depression, and/or certain maladaptive personality traits in their country of origin. An epidemiological survey (Ponizovsky et al, 1997) of suicide ideation among recent adult migrants from former Soviet Union to Israel showed that suicidal ideation was most frequent among socially and emotionally isolated immigrants with lower social support.

Adolescent suicidal behavior and social support

Suicidal ideation and its related factors are studied in adolescents. D'Attilio et al (1992) noted that social support variable accounted for 52% of the variance in suicide potential in adolescents. The greatest proportion of the variance in suicide risk was attributable to the quality of perceived social support. Disruption in adolescent's interpersonal relationships, accumulation of stress and lacking support from the family, less support and understanding from siblings and relations outside the family, more changes in living situation, sexual abuse during adolescence and more siblings leaving home during the preceding year may be warning signs of adolescent suicides (de Wilde et al, 1994).

Rich & Bonner (1987) have reported that 30% of variation in suicide ideation in students could be accounted for by the linear combination of negative life stress, depression, loneliness and few reasons for living. Haring et al (1991) reported peaking of suicides at the age of 15 and 19 and pointed weakened social integration as the causative factors. King et al (1990) identified adolescent female suicide attempters having fewer support persons, less likely to be living with their mothers, less likely to describe confiding relationships with parent/guardians and less active and affectionate relationships with mother figures than matched controls. Poor quality friendships, lower self esteem and disturbed family relationships are reported as risk factors for adolescents suicide (Cole et al, 1992). In males, negative life events and daily hassles were significantly associated with suicidal ideation. Involvement in bully victims at school, especially for students with relatively little social support was cited as significantly related to suicidal ideation elsewhere (Rigby & Slee, 1999).

Low perceived family support and low perceived peer support were found as common variables associated with suicidal risks in adolescents (Eskin, 1995). Pronovost et al (1995) reported that communication and parental support was significantly less in families with suicidal teenagers compared to non-suicidal teenagers. In addition, the variations in perception between adolescent and his or her parents are much greater in families with suicidal teens. In an intervention program, Thompson et al (2000) have reported both direct and indirect effects of teacher and peer group support in reducing suicidal behavior. De Man & Leduc (1995) reported that stress, social support, anomie, self-esteem and loss of control are significantly related with suicidal ideation along with other personal variables.

Social support, psychiatric disorders and suicide

Living alone status was compared between depressive suicides and depressive controls by Barraclough & Pallis (1975). They found that more depressive suicides (42%) than depressive controls (9%) were living alone. Another study (Hovey, 1999) which explored social support as a moderator in the relationship between depression and suicidal ideation found that ineffective social support and high depression was significantly associated with elevated suicidal ideation. Depressive patients with suicidal behavior were compared with depressive patients without suicidal behavior (Fang et al, 1996). Subjective social support, severity of depression and negative life events were found to be the leading causes of suicidal behavior in this study.

Enhancing social support has been found to decrease the suicide risk in posttraumatic stress disorder and other anxiety disorders (Kotler et al, 2001). A comparison of social support between schizophrenic suicides and living schizophrenics (Shaffer et al, 1974) found no difference in living alone status between suicides and controls.

Social support in alcoholic suicides

Periods of continuous drinking among alcoholics may cause disintegration in social support

systems (Westermayer & Neider, 1988). Findings from several studies indicate that experience of loneliness may be significant at all stages in the course of alcoholism, and is directly linked to poor prognosis in advanced abusers (Heikkinen, 1994b). Booth et al (2004) reported that drinking among elders elevates suicide risk through interactions with other factors that are more prevalent in this age group such as depressive symptoms, medical illness, negatively perceived health status, and low social support.

Living alone at the time of death, poor social support and unemployment are reportedly more common alcoholic suicides that alcoholic controls (Murphy et al, 1992). Although living alone may be commoner among alcoholics than depressive suicides a comprehensive comparison of social interaction factors in suicides of these diagnostic groups is lacking. In a comparative study of stressors in adolescent suicides with alcohol abuse versus depressive adolescent suicides (Marttunen et al, 1994) weakened parental support was more common among alcohol abuse victims.

Indian studies

An exhaustive review of literature could find only few studies related to social support and suicide from India. In a study conducted by Vijayakumar & Rajkumar (1999) in Chennai lack of faith in God, changes in religious affiliation and lower frequency of attending places of worship were significant risk factors for completed suicide. In a comparative study (Kumar, 2007) of suicide attempters versus normal age, sex and marital status matched normal controls all the variables in the social support system such as support from reliable attachment, teachers/parental figures/elders, friends, religion and other sources was significantly lower in attempters. Among all risk factors desirable life events, good education and good social support were found to be protective factors against suicide.

Correlation between life events, social support and suicide

Life events can alter the structure and function of the social support system in term of size, frequency of interaction and stability and such changes may be associated with suicidal behavior. Studies on social support has demonstrated the presence of either main (network) or buffering (interaction) effects of factors that mitigate the impact of life stress. Flannergy & Weiman (1989) in a more comprehensive assessment of both social support resources and life stress found buffering effects but not main network effect, having a significant role in reducing life stress.

When risk and protective factors were examined in suicidal and non-suicidal public high school students (Rubenstein et al, 1989) with life stress and depression as independent risk factors, family cohesion was found to offset the effects of stress and friendships to have a more indirect effect. Rudd (1990) in an integrative path model analysis of the relationship between several variables and suicidal ideations found a significant relationship between social support and both life stress and suicidal ideation. Vassilas (1990) reported excess of life stressors combining threat, uncertainty, impaired relationships, and choice of action in female attempters. They would have played some part in bringing about these stressors and to have poor social supports.

Bonner & Rich (1990) in an investigation to cross validate a stress-psychosocial vulnerability model suicidal ideation and behavior in a jail population indicated that 51% of the variation in suicide ideation could be accounted by the linear combination of low reasons for living, irrational beliefs, jail stress and loneliness. In addition, when the variables were entered into a hierarchical multiple-regression model, interactions between selective psychosocial vulnerability factors and jail stress were found to best explain suicide intent.

Abbar et al (1993) in an attempt to understand suicide as being multi determined reported that

social and family factors, negative life events and medical illness may interact with psychiatric and personality disorders, genetic variables, biological factors and psychosocial stressors in three ways to produce suicidal acts; as predisposing factors increasing vulnerability, as precipitating or contributing factors. Morano et al (1993) reported influence of recent loss on serious suicide attempts, especially when paired with a perceived lack of family support and hopelessness, which provides evidence for a 'stress vulnerability' model of adolescent suicide behavior.

In a study (Ketty et al, 2000) to investigate the impact of recent life events and social adjustment on suicide attempters reported that recent life events elevated the suicide risk in groups already at high risk of suicide completion, where as high levels of social adjustment protected against stress related suicidal behavior. Flint et al (1998) in an examination of effects of impaired social support and stressful life events on non-lethal suicidal behavior could not find any of four measures of social interactions (network size, frequency of social interactions, receipt of instrumental support and subjective social support) associated with suicidal behavior. Impaired social support did not appear to increase the odds of 1-year history of any form of suicide related ideation or attempt.

References

Barraclough, B.M. & Pallis, D. J. (1975). Depression followed by suicide: a comparison of depressed suicides with living depressives. *Psychological Medicine*, 5, 55-61.

Bearman, P.S. & Moody, J. (2004). Suicide and friendships among American adolescents. *American Journal of Public Health*, 94(1), 89-95.

Booth, B.M., Russel, D.W., Yates, W.R., Laughlin, P.R., Brown, K. & Reed, D. (2004). Social support and depression in men during alcoholism treatment. *Journal of Substance Abuse*, 4, 57-67.

Bunch, J. (1972). Recent bereavement in relation to suicide. *Journal of Psychosomatic Research*, 16, 361-366.

Bunch, J., Barraclough, B., Nelson, B. & Sainsbury, P. (1971). Suicide following bereavement of parents. *Social Psychiatry*, 6, 193-199.

Chandrasena, R., Beddage, V. & Fernando, M.L. (1991) Suicide among immigrant psychiatric patients in Canada. *British Journal of Psychiatry*, 159, 707-709.

Clark, D.E., Colantonio, A., Heslegrave, R., Rhodes, A., Links, P. & Conn, D. (2004). Holocaust experience and suicidal ideation in high-risk older adults. *American Journal of Geriatric Psychiatry*, 12(1), 65-74.

Cole, D.E., Protinsky, H.O. & Cross, L.H. (1992). An empirical investigation of adolescent suicidal ideation. *Adolescence*, 27(108), 813-818.

D'Attilio, J.P., Campbell, B.M., Lubold, P., Jacobson, T. & Richard, J.A. (1992). Social support and suicide: preliminary findings for adolescent populations. *Psychological Report*, 70(1), 76-78.

de Man, A. F. & Leduc, A. P. (1995). Suicidal ideation in high school students: depression and other correlates. *Journal of Clinical Psychology*, 51(2), 173 – 181.

de Man, A.F., Leduce, C.P. & Lanbreche-Gauthier, L. (1993). Correlates of suicidal ideation in French-Canadian adolescents: personal variables, stress, and social support. *Adolescence*, 28(112), 819-830.

de Wilde, E.J., Kienhorst, C. W, Diekstra, R.F & Wolters, W.H.(1994). Social support, life events and behavioural characteristics of psychologically distressed adolescents at high risk for attempting suicide. *Adolescence*, Spring, 29(113), 49 – 60.

Dennis, M., Wakefield, P., Molloy, C., Andrews, H. & Friedman, T. (2005). Self-harm in older people with depression: comparison of social factors, life events and symptoms. *British Journal of Psychiatry*, 186, 538-9.

Turvey, C., Stromquist, A., Kelly, K., Zwerling, C. & Merchant, J. (2002). Financial loss and suicidal ideation in a rural community sample. *Acta Psychiatrica Sandinavica*, 106(5), 373-380.

Dervic, K., Oquendo, M.A., Grunebaum, M.F., Ellis, S., Burke, A.K. & Mann, J.J. (2004). Religious affiliation and suicide attempt. *American Journal of Psychiatry*, 161(12), 2303-8.

Eskin, M. (1995). Suicidal behavior as related to social support and assertiveness among Swedish and Turkish high school students: a cross cultural investigation. *Journal of Clinical Psychology*, 51(2), 158 – 72.

Fang, R, Lu, L., Zhang, Y. & Zhang, J.(1996). Comparative study of psychological factors related to depressive patients with suicidal behavior. *Chinese Mental Health Journal*, 13(4), 255 – 256.

Hagnell, O. & Rorsman, B. (1980). Suicide in the Lundby study: a controlled prospective investigation of stressful life events. *Neuropsychobiology*, 6,319-332.

Haring, C., Biebl, W., Barnas, C., Miller, C.H. & Fleichhacker, W.W. (1991). Vulnerable phases in adolescence represented by means of suicide. *Crisis*, 12(1), 58-63.

Hart, E.E., Williams,C.L. & Davidson, J.A.(1988). Social behavior, social networks and psychiatric diagnosis. *Social Psychiatry and Psychiatric Epidemiology*, 23, 222 – 228.

Heikinen, M., Aro, H & Lonnqvist, J. (1993) Life events and social support in suicide. *Suicide and Life Threatening Behavior*, 23, 343-358.

Heikkinen, H.M., Aro, H. & Lonnqvist, J. (1994a). Recent life events, social support and suicide. *Acta Psychiatric Scandinavica*, Suppli. 377, 65-72.

Heikkinen, M., Aro, H.M., Henriksson, M.M., Isometsa, E., Sarna, S., Kuoppasalmi, K. I. & Lonnqvist, J. (1994b) Differences in recent life events between alcoholic and depressive non-alcoholic suicides. *Alcohol Clinic Experience and Research*, 18(5), 1143-1149.

Heikkinen, M., Isometsa, E., Aro, H., Sarna, S. & Lonnqvist, J.(1995). Age-related variations in recent life events preceding suicide. *Journal of Nervous and Mental Disorders*, 123, 325-331.

Heikkinen, M.E & Lonnqvist, R. (1995). Recent life events in elderly suicide: a nation wide study in England. *International Psychogeriatry Journal*, 7(2), 287-300.

Hirsch, J. & Ellis, J B. (1995). Family support and other social factors precipitating suicidal ideation. *International Journal of Social Psychiatry*, Spring 41(1), 26 – 30.

Hovey, J. D. (1999). Moderating influence of social support on suicidal ideation in a sample of Mexican immigrants. *Psychological Report*, 85(1), 78 – 79.

Hovey, J.D. (2000). Acculturative stress, depression and suicidal ideation in Mexican immigrants. *Culture Diverse Ethnic Minority Psychology*, 6(2), 134-151.

Jarbin, H. & Von Knorring, A.L. (2004). Suicide and suicide attempts on adolescent –onset psychiatric disorders. *Nord Journal of Psychiatry*, 58(2), 115-123.

King, C.A., Raskin, A., Gdowski, C.L., Butkus, M. & Opipari, L. (1990). Psychosocial factors associated with urban adolescent female suicide attempters. *Journal of American Academy of Child and Adolescent Psychiatry*, 29(2), 289-294.

Kirmayer, L.J., Boothroyal, LJ. & Hodyins, S. (1998). Attempted suicide among Inuit youth: Psychosocial correlates and implications for prevention. *Canadian Journal of Psychiatry*, 43(8), 816 – 822.

Kotler, M., Lancu, I., Efroni, R. & Amir, M. (2001). Anger, impulsivity, social support, and suicide risk in patients with posttraumatic stress disorder. *Journal of Nervous and Mental Disorders*, 189(3), 162-167.

Kumar, P.N.S. (2007). Life events, social support and coping strategies in attempted suicide. PhD Thesis, University of Calicut.

Magne-Ingvar, W., Ojehagen., A. & Traskman-Bendz., L.(1992). The Social network of people who attempt suicide. *Acta Psychiatrica Scandinavica*, 86(2), 153 –8.

Marion, M.S. & Range, L.M. ((2003). African American college women's suicide buffers. *Suicide and Life Threatening Behavior*, 33(1), 33-43.

Maris, R.W. (1992). The relationship of nonfatal suicide attempts to completed suicide. In: Maris, R.W., Berman, A.L., Yufit, R.I. eds. *Assessment and prediction of suicide*. New York: The Guilford Press, 362-380.

Marttunen, M.J., Aro, H.M., Henriksson, M.M & Lonnqvist, J.K. (1994). Psychosocial stressors more common in adolescent suicides with alcohol abuse compared with depressive adolescent suicides. *Journal of Academy of Child and Adolescent Psychiatry*, 33(4), 490 -7.

Murphy, G.E., Wetzel, R.D., Robins, E. & McEvoy, L. (1992). Multiple risk factors predict suicide in alcoholism. *Archives of General Psychiatry*, 49, 459-463.

Nisbet, P.A. (1996). Protective factors for suicidal black females. *Suicide and Life Threatening Behavior*, Winter, 26(4), 325 – 341.

Nisbet, P.A., Duberstein, P.R., Conwell, Y. & Seidlitz,h.(2000). The effect of participation in religious activities on suicide versus natural death in adults 50 and older. *Journal of Nervous and Mental Disorder*. 188(8), 543 – 546.

O'Donnell, L., O'Donnel, C., Wardlaw, D.M. & Stueve, A. (2004). Risk and resiliency factors influencing suicidality among urban African American and Latno youth. *American Journal of Psychiatry*, 33(1-2), 37-49.

Osvath, P. & Fekete, S. (2001). Suicidal behaviour in the elderly. Review of results at the Pecs Centre of the WHO/EURO Multicentre Study on suicide. *Orv Hetil*, 142(22), 1161-1164.

Paykel, E.S., Emms, E.M., Fletcher, J. & Russaby, E.S. (1980). Life events and social support is puerperal depression. *British Journal of Psychiatry*, 136, 339-346.

Perez-Smith, A., Spiroti, A. & Boergers, J. (2002). Neighborhood predictors of hopelessness among adolescent suicide attempters: preliminary investigation. *Suicide and Life Threatening Behavior*, 32(2), 139-145.

Ponizovsky, A. & Ritsner, M. (1999). Suicide ideation among recent immigrants to Israel from the former Soviet Union: an epidemiological survey of the prevalence and risk factors. *Suicide and Life Threatening Behavior*, 29(4), 376-392.

Pronovost, J., Roussean, J., Simard, N. & Counture, G. (1995). Parental communications and support perceived in families of suicidal and non-suicidal adolescents. *Sante Mental Questionnaire*, Autumn, 20(2), 185 – 202.

Rich, A. R. & Bonner, R.L. (1987). Concurrent validity of a stress-vulnerability model of suicidal ideation and behavior: a follow-up study. *Suicide and Life Threatening Behavior*, 17(4), 265-270.

Rich, C.L., Young, D. & Flower, R.C. (1986). San Diego suicide study I: Young versus old subjects. *Archives of General Psychiatry*, 43, 577-582.

Rigby, K. & Slee, P. (1999). Suicidal ideation among adolescent school children, involvement in bully victim problems, and perceived social support. *Suicide and Life Threatening Behavior*, 29(2), 119 – 130.

Rorsman, B. (1973). Suicide in psychiatric patients: a comparative study. *Social Psychiatry*, 8, 55-66.

Rutter, P.A. & Soucar, E. (2002) Youth suicide risk and sexual orientation. *Adolescence*, 37(146), 289-299.

Sainsburry, P. (1973). Suicide: opinions and facts. *Proceedings of Research in Social Medicine*, 66, 579-587.

Schutt, R.K., Meschede, T. & Rierdam, J. (1994). Distress, suicidal thoughts, and social support among homeless adults. *Journal of Health and Social Behavior*, 35(2), 134 – 142.

Shaffer, J.W., Perlin,S. & Schmidt, C.W. (1974). The prediction of suicide in schizophrenia. *Journal of Nervous and Mental Disorders*, 159, 349-355.

Sher, L (1999). On the roe of neurobiological and genetic factors in the etiology and pathogenesis of suicidal behavior among immigrants. *Medical Hypothesis*, 53(2), 110-111.

Stocks, R. & Scott, A.I. (1991). What happens to patients who frequently harm themselves? A retrospective one-year outcome study. *British Journal of Psychiatry*, 158, 375 – 378.

Suppapitiporn, S., Thavichachart, N. & Suppapitiporn, S. (2004). Social support in depressed patients who attempted suicide. *Journal of Medical Association Thailand*, 87 Suppl, 266-271.

Thompson, E.A., Eggert, L.L. & Herting, J.R. (2000). Mediating effect of an indicated prevention program for reducing youth depression and suicide risk behaviors. *Suicide and Life Threatening behavior*, 30(3), 252-271.

Thompson, M.P., Kaslow, N.J., Short, L.M. & Wyckoff, S. (2002). The mediating roles of social support and resources in the self-efficacy -suicide attempts relation among African American abused women. *Journal of Consulting and Clinical Psychology*, 70(4), 942-949.

Tyssen, R., Vaglum, P., Gronvold, N.T. & Ekenberg, O. (2001). Suicidal ideation among medical students and young physicians: a nationwide and prospective study of prevalence and predictors. *Journal of Affective Disorders*, 64(1), 79-79.

Van Ness, P.H. & Larson, D.B. (2002). Religion, senescence, and mental health: the end of life is not the end of hope. *American Journal of Geriatric Psychiatry*, 10(4), 386-397.

Veiel, H.O.F., Brill, G., Hafner, H. & Weiz, R. (1988). The social support of suicide attempters: the different role of family and friends. *American Journal of Community Psychology*, 16, 839 – 861.

Vijayakumar, L. & Rajkumar, S. (1999). Are risk factors for suicide universal? A case - control study in India. *Acta Psychiatrica Scandinavica*, 99(6), 407 – 41.

Westermayer, J. & Neider, J. (1988). Social network and psychopathology among substance abusers. *American Journal of Psychiatry*, 145, 1265-1269.