

Moderating Effect of Psychological Well-being on Relationship among Thwarted Belongingness and Acquired Capability for Suicide among Cancer Patients

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Abstract

Study was design to inspect the moderating effect of psychological wellbeing on the relationship of thwarted belongingness and acquired capability for suicide among cancer patients. 155 cancer patients both male and female were included in this study. Urdu translated version of the subscale thwarted belongingness of the interpersonal need questionnaire (INQ) scale (Van Orden et al., 2012), Acquired capability for suicide scale (ACSS) (Van Orden, Witte, Gordon, Bender, & Joiner, 2008) and Ryff's scale of psychological wellbeing (Ansari, 2010) were administered. Correlation matrix was used to find out relation between all the variables. Hierarchical regression analysis was applied to find out the moderating effect of psychological wellbeing on the association among thwarted belongingness and acquired capability for suicide among cancer patients. Results showed that decreased level of psychological wellbeing strengthens the relationship of acquired capability for suicide and thwarted belongingness. On the other hand high level of psychological wellbeing yields no effect on the relationship between thwarted belongingness and acquired capability for suicide among cancer patients.

Keywords:Thwarted belongingness, psychological wellbeing, acquired capability for suicide, moderation, cancer patients.

Introduction

Cancer is notorious for being a difficult and complex disease that affects patients and their families both physically and emotionally (Tavoli, Montazeri, Roshan, Tavoli, & Omidvari, 2007). A

sense of thwarted belongingness is the feeling that one is not a connected part of a his family, peers, or other respected group of society and he is separate from rest of people. Previous researches tell us that

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there is plentiful confirmation that this behaviors. Certainly, a convincing case can be made that of all the risk factors for behaviors related to suicide that exist, ranging from the individual to the cultural level, the strongest and most consistent support has emerged for indices associated to social loneliness (Boardman, Grimbaldeston, Handley, Jones, & Willmott, 1999).

It is believed that cancer patients need a valuable support to cope with their illness but they are mostly deprived of such backing from the individuals close to them. This argument is supported by the Macmillan Cancer Support study (BBC News, 2006) which found that 49% of cancer patients reported depression and 75% experienced anxiety. The same survey reported that 24% expressed of having nobody to talk about their experience of loneliness and isolation, 19% sensed isolated, whereas 45% believed that emotional effects of cancer were more severe and difficult to manage than the physical ones. The report also found that 26% of individuals with cancer thought abandoned by the health system when they were not hospitalized. They were immensely dependent on care givers for both practical and emotional support as well. Those care givers were mostly

issue is implicated in suicide related spouses and other family members (BBC News, 2006).

It has been empirically witnessed that increased levels of social isolation or thwarted belongingness was constantly associated with higher risk for morbidity and death as compare to those other apparent health risk factors like smoking, obesity or hypertension etc (House, et al., 1988).

Association with significant others is a vital need (Baumeister & Leary, 1995). Meeting this need develop a general sense of well being and is essential for continued existence. Joiner (2005) suggests that if this need is fulfill, an individual will not complete his attempt of suicide in spite of of other risk factors. There are a number of examples in the literature of belongingness being a shielding aspect for suicide. Motto and Bostrom (2001) applied randomized intrusions in which half of a group of suicidal patients who refused continuing care were sent episodic letters by the individuals who had interviewed them in the hospital. They confirmed that even this remote contact with a concerned individual lessen the suicide rates in a suicide vulnerable population. Other researchers have demonstrated that connection with the family (Compton, Thompson, &

Klaslow, 2005) and having a religious affiliation (Dervic et al., 2004) are both has been verified to be an important associate of suicide and suicidal ideation. For example, being divorced, widowed, or living by yourself only, are comparatively well recognized risk factors for suicide and suicidal ideation (Boardman, Grimbaldeston, Handley, Jones, & Willmott, 1999). In addition to that, losing a parent early in life is a predictable risk factor suicide in later life (Lester, 1998). According to Joiner (2005), both feelings of burdensomeness and thwarted belongingness add up to the desire for suicide in an individual. If whichever feelings of effectiveness or connectedness are intact, the will to live remains intact as well in an individual.

The acquired capability for suicide (ACS) consists of a lowered fear of death as well as increased pain tolerance. According to the Interpersonal theory for suicide (IPTs) (Joiner, 2005; Van Orden et al., 2010), humans should be biologically and evolutionarily predisposed to fear threats to their survival. Thus, individuals who desire to die by suicide would first need to overcome this fear. Indeed, fear of suicide was one reason individuals gave for why they had not engaged in suicidal behavior (Linehan, Goodstein, Nielsen, & Chiles, 1983).

defensive factors for suicidal ideation and suicide attempts. Thwarted belongingness

ACS is theorized to increase over time as a result of experiencing painful and/or provocative events (e.g., combat exposure, previous suicide attempts, childhood maltreatment, chronic pain disease), which provide an opportunity to habituate to pain and fear of death. Cancer patients have to endure great amount of physical and psychological pain, this uncontrolled pain has been recognized as an important contributing factor in cancer and AIDS patients (Bolund, 1985) in developing low fear of death with more pain tolerance leading them to have an acquired capability for suicidal behaviors. The uncontrolled persistent pain and the terminal illness are the most common reasons for request of euthanasia also called mercy killing and physician assisted suicide (Helig, 1988).

The fact, that psychological health is vital regarding our function and adaptation in our life and concerning the satisfaction and productivity of our lives, is free from any doubt. Mental wellbeing has severe concern with our normal functioning in day to day activities and responsibilities at home or workplace. In a study (Chnadra et al, 1998) the impact of cancer on the psychological wellbeing of newly diagnosed cancer patients prior to

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and for the duration of the course of radiotherapy was assessed and findings showed that during the course of radiotherapy treatment there was a shrinking in the wellbeing scores on some dimensions for example perceived family and primary group support.

Psychosocial factors, like social support and distress, are linked through some changes in the immune responses at the cellular level, not just in the peripheral blood, but also at the tumor level among cancer patients. These associations were more vigorous in TIL (tumor-infiltrating lymphocytes). These results sustain the assumption that the existence of stress affects in the tumor microenvironment (Lutgendorf et al., 2005).

Constricting highly dangerous physical ailments such as HIV and cancer may go ahead to difficulties connected to self esteem, coping, social loneliness, and deprived psychological well being (Parker, Aggleton, Attawel, Pulerwitz & Brown, 2010). Recent study by Sisask and et al (2008) showed that decrease intensity of psychological wellbeing is linked with elevated levels of suicidal intent, depression and hopelessness. Suicidal intention linked the mainly with low psychological wellbeing.

Pakistan is an Islamic republic where principles of Islam are practiced by the majority of the individuals. Islam has severely prohibited any attempt of self harm or killing and hence this act is also conceived as a criminal offence in Pakistan. It is therefore, suicidal behaviors are kept secret by individuals and family to protect so called honor in the society. Cancer patients in Pakistan cannot ask for euthanasia also called mercy killing and physician assisted suicide despite suffering from a lot of painful treatment. The point of the existing study is to look at the aspects of thwarted belongingness, acquired capability for suicide with the passage of cancer treatment and the moderating role of psychological well being in cancer patients lives.

Sample

As it was a non funded research, therefore to save time, money and effort, convenience sampling strategy was used to draw the sample. The current study recruited ($N = 155$) cancer participants, further divided as females ($n = 81$) and males ($n = 74$) from ShokatKhanam Cancer Hospital, Lahore, Sir Ganga Ram Hospita, Lahore, and Services Hospital, Lahore.

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Instrument

Thwarted belongingness. Scale was taken from the Inter personal Need Questionnaire (INQ; Van Orden et al., 2012). It is a subscale of INQ scale. Scale was translated for the current study in to urdu language. Nine items measured thwarted belongingness on the redefine version of 15 items INQ scale (Silva, 2013)

Acquired Capability for Suicide Scale (ACSS). Scale was first translated in to urdu and later used in the study. The Acquired Capability Scale for Suicide (ACSS; Van Orden, Witte, Gordon, Bender, & Joiner, 2008) is a 20- item self-report measure created to assess fearlessness about fatal self-injury and the self perceived ability to endure the pain involved in self-injury and suicide.

Ryff's scales of Psychological Wellbeing (RPWB). Urdu translation version by Ansari (2010) of psychological wellbeing scale (Carol Ryff, 1989) used in this study is 54 items long scale with 9 items of each sub scale. It is intended to calculate six in theory motivated constructs of psychological wellbeing, (on a 6 point likert scale) which are, *Autonomy* – which stands for liberty and freewill ($\alpha = 0.82$). *Environmental mastery*- which stands for the capacity to direct one's life ($\alpha = 0.81$); *Personal growth*- which stands for open to new experiences in life ($\alpha = 0.81$); *Positive relations with others*- stands for having a rewarding, high quality relationships ($\alpha = 0.83$); *Purpose in life*- stands for believing that one's life is significant ($\alpha = 0.84$); *Self-acceptance*- stands for an optimistic approach towards oneself and one's past life as well ($\alpha = 0.83$).

Results

Table 1

Means, standard deviations, alpha reliability and correlation matrix for all variables used in the study (N = 155)

Variables	1	2	3	α	<i>M</i>	<i>SD</i>
1	--	.16*	-.86**	.89	31.02	11.82
2	--	--	-.08	.92	56.05	18.33
3	--	--	--	.95	164.53	41.59

Note. 1 = thwarted belongingness; 2 = Acquired capability for suicide; 3 = psychological wellbeing.

* $p < .05$. ** $p < .01$.

Table 2 shows internal consistency index (alpha coefficients) for all scales used in the study. Reliabilities of all scale achieved high alpha levels from .89 to .95. Further table 2 also represented the correlation matrix computed for all pairs of scores forthwarted belongingness, acquired capability for suicide and psychological wellbeing. Thwarted belongingness is found to be significantly positively correlated with acquired capability for suicide while both of them correlated negatively with psychological wellbeing.

Table 2

Moderating role of psychological wellbeing in the relationship between acquired capability for suicide and thwarted belongingness (N = 155)

Models	Predictors	Acquired capability for suicide	
		ΔR^2	β
Model I	Thwarted belongingness	.021	.16*
Model II	Thwarted belongingness		.35*
	Psychological wellbeing	.027	.22
Model III	Thwarted belongingness X psychological wellbeing	.042	-.14*
	Total R^2	.09	

* $p < .05$.

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Table 2 demonstrates the moderating influence of psychological wellbeing on the relationship of thwarted belongingness and acquired capability for suicide. Table presents three models where first model explains the prediction of thwarted belongingness for acquired capability for suicide and found to be significant $\{R^2 = .021, F(1, 153) = 4.31, p < .05\}$ where thwarted belongingness is found to be a significant positive predictor of acquired capability for suicide ($\beta = .16, t = 2.07, p < .05$) and has been found contributing for 2.1% variance in the dependent variable ($R^2 = .021$).

In second model, thwarted belongingness and psychological wellbeing both variables are entered in the predictor list. Psychological wellbeing was not found to be significant, while thwarted belongingness was found to be significant, with $\{\Delta R^2 = .027, \{F(2, 152) = 1.94, p < .05\}$ in the model. Beta values demonstrate that thwarted belongingness has been significant positive predictor of the outcome variable ($\beta = .35, t = 2.25, p = .001$).

The third model accounts for interaction effect of thwarted belongingness and psychological wellbeing on acquired capability for suicide. The model was found significant with $\{\Delta R^2 = .042, F(3, 151) = 3.375, p < .05\}$ which suggests that the product of thwarted belongingness and psychological wellbeing significantly predicts the outcome variable with ($\beta = -.14, t = -1.83, p < .05$). Moreover, as R^2 suggests 9% of the variance in the outcome variable is attribute to interaction effect, which is strong enough to support the assumption that psychological wellbeing moderates the relationship of thwarted belongingness and acquired capability for suicide.

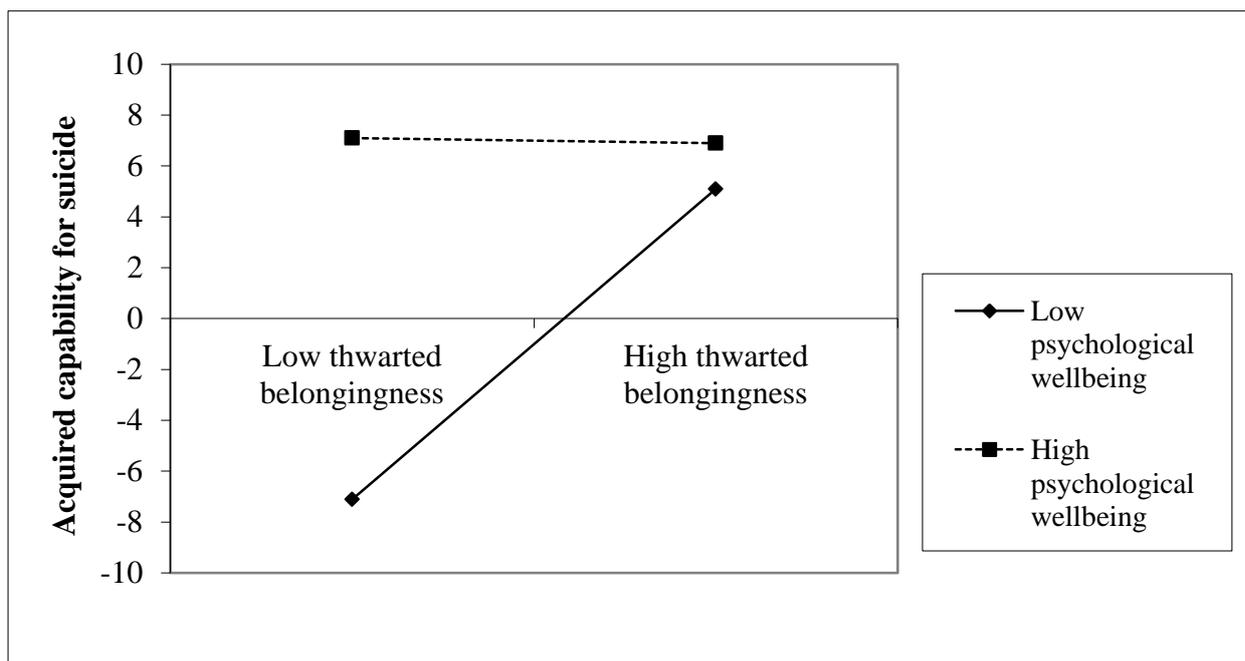


Figure 1. Graphical representation of psychological wellbeing moderating role between thwarted belongingness and acquired capacity for suicide

Figure 1 demonstrates graphic presentation of the moderating role of psychological wellbeing (PWB) in the relationship of acquired capability for suicide and thwarted belongingness. Steep line of low PWB indicates that the decreased level of PWB strengthens the relationship of acquired capability for suicide and thwarted belongingness. On the other hand high level of PWB yields no effect as the line has not steep.

Discussion

The rationale behind this chapter is to describe and explain the findings of the present study and discuss the importance of psychological wellbeing among cancer patients. Present study focused on examining the moderating role of psychological wellbeing in relationship of thwarted belongingness and acquired capability for suicide.

Previous literature shows somewhat contradictory result that the need to belong when not met (i.e. thwarted belongingness) is significantly related and predictive of suicidal behaviors. According to Witte (2006) study thwarted belongingness (TB) is marginally significant predictor of suicidal behaviors that lead to suicide completion while on the other hand according to Gunn (2012) study which examined thwarted belongingness (TB) and perceived burdensomeness (PB) in suicide notes find out that few suicide notes of their study

were found to have PB (10.3%) and TB (30.7%). Further they find out that notes of younger suicides more frequently contain the themes of TB only. The association between sense of belongingness and suicidality was found to be weak and this weak association can be taken in to account by confounding factors in a systematic reviews of studies on sense of belonging and suicide by Hatcher and Stubbersfield (2013). These findings suggested that perhaps some other variable is working between TB and ACS that is affecting the relationship between them. In current study the proposed model had psychological wellbeing as a moderator between the relationship of TB and acquired capability for suicide (ACS) among cancer patients.

Our hypothesis was that psychological wellbeing will moderate the relationship among TB and ACS. Results showed that this hypothesis was accepted

and the interaction of thwarted wellbeing predict acquired capability for suicide. Overall the interaction model was found to be significant which suggested that the product of TB and psychological wellbeing (PWB) predicts ACS among the cancer patients of current study sample. This interaction further tells us that if the level of psychological wellbeing be low than the relationship connecting TB and ACS will strengthen or increase, but if level of psychological wellbeing get higher than relationship connecting TB and ACS will weaken. This results shows us that how much important it is to apply psychological interventions that works on enhancing the psychological wellbeing among cancer patients, in this way their suicide desire and capability for suicide can be eliminated that develop from the long physical and psychological pain of cancer treatment.

Findings of the current study sample about low level of psychological wellbeing among cancer patients have been consistent with the other studies that have on numerous accounts supported that cancer diagnoses or during the course of cancer treatment the psychological wellbeing of cancer patients is severely dented. In a study (Chandra et al, 1998) the effect of cancer on the PWB of recently diagnose tumor patients prior to

belongingness and psychological and throughout the course of radiotherapy treatment were observed and study and findings showed that throughout the course of their radiotherapy there was a decline in the wellbeing score on a few dimensions for example professed family and prime group support.

In another study (Lutgendorf et al, 2005) psychosocial factors, for instance social support and anguish, are related with change in the immune responses at the cellular levels, not just in marginal blood, nevertheless at the tumor levels also. These relations were further vigorous in TIL (tumor-infiltrating lymphocytes). This result supports the existence of stress and strain influence in the cancer cells microenvironment.

Cancer affects the psychological well-being of a patient, which mainly results in depression and anxiety (Costanzo, Ryff, & Singer, 2009). These aspects consequently have an effect on the quality of life of the cancer patients. Findings of studies have showed that (Parker, Aggleton, Attawel, Pulerwitz, Brown, 2010) constricting highly dangerous physical ailments in which patients have to go through physical and psychological pain during course of their treatment such as HIV and different types

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of cancer can direct to difficulties in their seclusion, and they have poor psychological wellbeing.

Current study results showed that cancer patients had low level of belongingness in them. Steady with the conclusions of supplementary studies that the high levels of social isolation or thwarted belongingness are time after time linked with greater than before risk for morbidity and death among patients who have standard health risk factors such as smoking, blood pressure, and obesity (House, et al., 1988).

Cancer patients during the course of their painful treatment develop both. Psychological wellbeing is an important variable and if it is worked upon or enhanced in cancer patients through different trainings or psychological interventions than suicidal behaviors can be minimizes among cancer patients and help them in living a more sound life.

Limitation and suggestion

Pakistan is a Muslim society where suicide is being a taboo topic and people out of guilt and social constrain keep on suffering in silent but do not ask for help. Cancer patients have to endure great amount of pain and suffering during the course of their treatment which leads them

lives allied to self esteem, coping, social to ward suicidal ideation and attempting suicidal behaviors also. Being in Muslim society they cannot request for euthanasia also called mercy killing and physician assisted suicide to end their pain and suffering from the painful cancer treatment and nor oncologist are allowed legally to give euthanasia to any of their patient.

Religiosity and spirituality was ignored during this study and being a Muslim society both of these have strong hold in the mentality of the people. Sample was taken from one cancer hospital and no segregation was done on the type of cancer patients. Length of the questionnaire should have been shorter as the cancer patients mostly cannot fill and read the forms themselves and also cannot maintain longer concentration while they are being chemotherapy.

Implications

This study has theoretical as well as practical implications. Current study find out that cancer patients have both desire and ACS which according to IPTS (Joiner, 2005) are must components to attempt lethal self injury to ends one's life. Further current study also examine the role of psychological wellbeing and find out that psychological well being level effects on the relation of burdensomeness and low

belongingness with acquired capability for suicide that leads to ward suicidal enhanced or improved through some psychological interventions than it weaken this relationships and cancer patients can live well moderate psychologically healthy lives. This research will help the existing body of knowledge. And will have practical implications in the field of psycho oncology for the oncology nurses, therapists and doctors to affectively deal with cancer patients during their occurs of treatment. Findings will also be helpful in training programs for clinicians.

Future directions Future work should

behaviours. If psychological wellbeing is extend this work by incorporating other variables such as, ethical and moral values, religiosity and spirituality as these factors are important in an Muslim society. Age difference and socio economic differences should also be studied with respect to cancer patients' suicidal behaviors. Longitudinal studies should also be conducted on these variables to examine the lifelong effects of the variables. A mixed method approach of both qualitative and quantitative techniques may elucidate insightful and more broad understanding of this phenomenon.

References

- Ansari, S. A. (2010). Cross validation of Ryff scales of psychological wellbeing: Translation into Urdu language. *Pakistan Business Review*, 12(2), 244-259.
- Baumeister, R.F., & Leary, M.R. (1995). The need to belong: Desire for interpersonal attachments as a fundamental human motivation. *Psychological Bulletin*, 117, 497-529.
- BBC News, Cancer patients feel isolated, 2006; retrieve from www.bbc.co.uk/health.
- Boardman, A. P., Grimbaldston, A. H., Handley, C., Jones, P. W., & Willmott, S. (1999). The North Staffordshire suicide study: a case-control study of suicide in one health district. *Psychological Medicine*, 29, 27-33.
- Bolund, C. (1985). Suicide and cancer: II. Medical and care factors in suicide by cancer patients in Sweden, 1973-1976. *Journal Psychosocial Oncology*, 3, 17-30.
- Chandra, P. S., Chaturvedi, S. K., Channabasavanna, S. M., Anantha, N., Reddy, B. K., Sharma, S., Rao, S. (1998). Psychological well-being among cancer patients receiving radiotherapy--a prospective study. *Quality of life research* 7(6), 495-500.
- Compton, M. T., Thompson, N. J., & Kaslow, N. J. (2005). Social environment factors associated with suicide attempt among low-income African Americans: The protective role of family relationships and social support. *Social Psychiatry and Psychiatric Epidemiology*, 40, 175-185.
- 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, 2303- 2308.
- Gunn, J. F., Lester, D., Haines, J., & Williams, C. L., (2012). Thwarted belongingness and perceived burdensomeness in suicide notes. *The Journal of Crisis Intervention and Suicide Prevention*, 33(3), 178-181.
- Hatcher, S., & Stubberfield, O., (2013). Sense of belonging and suicide: a systematic review. *Canadian Journal of Psychiatry*, 58(7), 432-6.
- Helig, S. (1998). The San Francisco Medical Society euthanasia survey:

Moderating Effect of Psychological Wellbeing on Relationship between Thwarted Belongingness and Acquired Capability for Suicide among Cancer Patients

- Results and analysis, *San Francisco Medicine*, 61, 24-34.
- House, J. S., Landis, K. R., & Umberson, D. (1988). Social relationships and health. *Science*, 241, 540–545.
- ICPSR (2004-2006). National Survey of Midlife Development in the United States (MIDUSII) [psychological well-being (MIDUS-II version)] 22-25.
- Joiner, T. E., Conwell, Y., Fitzpatrick, K. K., Witte, T. K., Schmidt, N. B., Berlim, M. T., et al. (2005). Four studies on how past and current suicidality relate even when “everything but the kitchen sink” is covaried. *Journal of Abnormal Psychology*, 114, 291-303.
- Lester, D. (1998). Experience of loss in famous suicides. *Psychological Reports*, 82, 1090.
- Linehan, M. M., Goodstein, J. L., Nielsen, S. L., & Chiles, J. A. (1983). Reasons for staying alive when you are thinking of killing yourself: The reasons for living inventory. *Journal of Consulting and Clinical Psychology*, 51(2), 276.
- Lutgendorf, S.K., Sood, A.K., Anderson, B., McGinn, S., Maisei, H., Dao, M., Sorosky, J. I., De Geest, K., Ritchie, J., & Lubaroff, D. M. (2005). Social support, psychological distress and natural killer cell activity in ovarian cancer. *Journal of clinical Oncology*, 23(28), 7105-7113.
- Motto, J. A., & Bostrom, A. G. (2001). A randomized controlled trial of post crisis suicide prevention. *Psychiatric Services*, 52, 828-833
- Parker, P., Aggleton, P., Attawel, K., Pulerwitz, J., & Brown, L. (2010). HIV/AIDS related stigma and discrimination: a conceptual framework and an agenda for action. Horizons Program. *The Population Council*. Retrieved from <http://www.popcouncil.org/pdfs/horizons/>.
- Ryff, C. D. (1989). Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *Journal of Personality and Social Psychology*, 57, 1069-1081.
- Silva, C. (2013). Spanish translation and validation of the interpersonal needs questionnaire. *Electronic Theses, Treatises and Dissertations*. Paper 7603.
- [Sisask, M.](#), [Värnik, A.](#), [Kõlves, K.](#), [Konstabel, K.](#), & [Wasserman, D.](#)

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- (2008). Subjective psychological well-being (WHO-5) in assessment of the severity of suicide attempt. *Nordic Journal of Psychiatry*, 62(6), 431-435.
- Tavoli, A., Montazeri, Roshan, Tavoli, Z., & Omidvari, S. (2007). Anxiety and depression in patients with gastrointestinal cancer: does knowledge of cancer diagnosis matter? *BMC Gastroenterology*, (7)28. doi: 10.1186/1471-230X-7-28
- Van Orden, K. A., Cukrowicz, K. C., Witte, T. K., & Joiner, T. E. (2012). Thwarted belongingness and perceived burdensomeness: Construct validity and psychometric properties of the Interpersonal Needs Questionnaire. *Psychological Assessment*, 24(1), 197-215.
- Van Orden, K. A., Witte, T. K., Gordon, K. H., Bender, T. W., & Joiner, T. E., Jr. (2008). Suicidal desire and the capability for suicide: Tests of the Interpersonal-Psychological Theory of Suicidal Behavior among adults. *Journal of Consulting and Clinical Psychology*, 76, 72-83
- Witte, T. K. (2006). A Test of Joiner's theory: The relationship between pain exposure, thwarted belongingness, and suicide completion. *Electronic Thesis, Treatises and Dissertations*. Paper 917.