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The Influence of Gender on Self-Esteem and Loneliness in Indian Adolescents

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Loneliness, perceived social isolation, self-esteem, and evaluation of the self are important psychological variables. Both are linked to disorders like depression, anxiety, stress, and even health outcomes. Evolutionary theories suggest that loneliness developed as a mechanism to prevent social isolation, and self-esteem is influenced by the need to bond with others. Studies have also shown that age, gender and culture predict loneliness and that self-esteem has certain gendered patterns. The present study examines the relationship between loneliness, self-esteem and gender in Indian adolescents. Three hypotheses were tested in this study — H1: Loneliness will negatively correlate to self-esteem in boys and girls. H2: There will be a significant difference in loneliness between girls and boys. H3: There will be a significant difference in self-esteem between girls and boys. Random sampling was done, and a sample of N = 544 participants was gathered. The tools used were the Revised UCLA Loneliness Scale and Rosenberg Self-Esteem Scale. A t-test and correlation were performed on Jamovi, and Hypotheses 1 and 3 were accepted. This leads to speculation about gendered patterns of coping with low self-esteem or high loneliness, as well as perhaps higher self-esteem in boys, allowing them to express loneliness without seeing it as a problem. It could also mean boys believe that being lonely is natural for their age or their gender. Qualitative studies may better predict the reasons for the gendered patterns. Future studies should examine the spectrum of genders and also look into the relationship between self-esteem and loneliness across the lifespan.

Keywords: Adolescents, Correlation, Gender, Loneliness, Self-esteem

The influence of gender on various psychological variables has been studied for years. Medical men, as long ago as Hippocrates and Galen have studied afflictions that affect women more than men, like the psychosis accredited to the wandering of the uterus (Faraone, 2011). However, since the age of case study-based theorization, science and psychology have come a long way. Today, empirical evidence suggests that gender, both in its biological and social sense, has an influence on psychological variables like Self-Esteem and Loneliness. This paper focuses on cis-genders and their influence on two variables, specifically Self-Esteem and Loneliness.

Weiss (1973) defined loneliness as perceived social isolation. Borys & Perlman (1985), in a study with 117 participants, used the UCLA scale to identify gendered patterns of loneliness. They found that men have higher scores of self-labelling, but women are more likely to admit being lonely. They hypothesised that gender roles may influence the reporting of loneliness and found that subjects were more likely to reject a lonely male than a lonely female. This can be connected to the evolutionary mechanism

of loneliness. Cacioppo, Cacioppo & Boomsma (2014) point out how, throughout history, human beings have banded together. Since loneliness influences survival advantage, especially during early evolutionary stages, it manifests as a negative state of being. Loneliness is almost always painful, troubling and distressing (Jones, Freemon & Godwick, 1981). Boomsma and their colleagues (2007) studied large samples from the Netherlands Twin Register and found high phenotypic stability for loneliness, which provides evidence for the heritability of loneliness. Longitudinal studies (Cacioppo, et al. (2006) found that loneliness also increases depressive symptomology.

At this point, the gendered patterns of stress response are relevant to take into consideration for this study. Most people are familiar with the "fight-or-flight" response proposed by Cannon (1932). The body mobilises energy through the sympathetic nervous system and endocrine system to respond quickly to environmental stressors. The effects of long-term HPA activation, as well as cortisol secretion, have been studied for their clinical implications in conditions like depression (Pariante & Lightman, 2008). However, a more recent mechanism to deal with stress is the "tend-and-befriend" response (Taylor et al., 2000). This theory stipulates that an oxytocin-mediated system enables an organism to respond to stress via social affiliation and nurturant behaviour. This is especially true for women since oxytocin and its effects on oestrogen are well documented. Further, mothering responses increase relaxation (Pedersen & Boccia, 2002) and promote bonding between mother and child, especially in infancy, which is a stressful period for the new mother and the child. Hence, if women and men respond differently to stressors, it is not unlikely that they respond differently to loneliness as a stressor.

There are also studies that examine loneliness and gender across the human lifespan. Koenig and Abrahams (1999) found that adolescents spend less time with their families, and the decline was steep for males. A meta-analysis by Maes and their colleagues (2019) found that men in their life stages, i.e. childhood, adolescence and young adulthood, tend to be lonelier than females in the same group. The effect of gender, however, appeared to be non-significant in older ages. Within women, however, older women were more satisfied in relationships and had lower loneliness (Schmitt & Kurdek, 1985). Cross-Cultural studies also show that individualism was positively correlated to loneliness (Barreto, et al., 2021). These researchers also found that age, gender and culture interacted and predicted loneliness.

Recent studies in the year 2020, have also shown a link between social isolation and loneliness to dementia (Meltzer, et al., 2013), heart disease, stroke (Hawkley, et al., 2003), higher inflammatory responses (Steptoe, et al., 2004) and poorer immune functioning (Jaremka, et al, 2020). Leigh-Hunt and others (2017) found that loneliness was associated with higher mortality rates. They suggested that future research should focus on the impact of parent/child social isolation and view the situation from a developmental context—loneliness results in lower well-being, depression, sleep and appetite disturbances (Weidinger, 1992). Studies have also shown that perceived social isolation can lead to more hazardous lifestyle choices like substance abuse (Hosseinbor et al., 2014), as well as anxiety and depression-related disorders (Leary, 1990). Other studies during the COVID-19 Pandemic also highlight the negative impact of loneliness. Rumas and others (2021) found that ageing was negatively associated with loneliness, while virtual contact positively correlated with loneliness. A German longitudinal study in the year 2018 found that

loneliness had a reciprocal relationship with social integration, but the relationship was stronger with age (Böger & Huxhold, 2018).

Adolescents are also particularly vulnerable to the effect of loneliness since one of their developmental tasks is navigating peer relationships. They are vulnerable to personal fable (Elkind, 1981) and egocentrism (Elkind, 1967) which also increases their need to bond. Mahon and others (1993) surveyed 325 adolescents between 12 and 21 years and found that loneliness and introspectiveness contributed to lower perceived health status. Heinrich and others (2006) found that more than 70% of adolescents experienced loneliness, indicating that loneliness is most prevalent in this life stage. These have also been linked to higher risk in adolescents for depression (Koenig and Abrams, 1999), poorer health overall (Mahon et al., 1993), psychosomatic complaints (Ponzetti Jr, 1990) and suicide ideation (Heinrich and Gullone, 2006). Koenig and Abrams (1999) also noticed a gender difference, with boys having higher rates than girls as they spent more time alone, as opposed to girls who spent time with peers instead of parents.

Studies in 1991 have examined the relationship between self-esteem and loneliness. They found that this variable was also linked to fatalism and substance use (Olmstead et al., 1991). Hu and their colleagues (2013) found that explicit self-esteem rather than implicit self-esteem was negatively correlated to loneliness. Implicit self-esteem refers to the learned automatic and unconscious self-evaluation (Greenwald and Banjo, 1995) as opposed to the explicit component that is measured by Rosenberg's scale. Wilson, Lindsey, and Schooler (2000) proposed that self-esteem also followed the dual process model — explicit self-esteem is the cognitive mode, while implicit self-esteem is the experiential mode.

The need to study the link between self-esteem and loneliness can be explained by research into the relationship of these variables to several disorders. Ma et al. (2014) studied the relationship with social anxiety and found that social anxiety was a mediator between self-esteem and loneliness. Social anxiety could contribute to loneliness, which in turn has other consequences. Kong & You (2013) found that in Chinese college students, both loneliness and self-esteem acted as mediators in the relationship between social support and life satisfaction. Ayar and Hormuz (2013) examined 292 students and found that internet addiction could be predicted by depression and loneliness. A Malay study in 2009 also studied these variables along with stress, with 1407 participants between 13 and 17 years of age. They found that loneliness, stress and self-esteem had significant relationships with adolescent depression (Yaacob et al., 2009). The relationship between self-esteem and loneliness may also be thought of as evolutionary. Leary and Baumeister (2000) suggested the Sociometer Theory, wherein self-esteem is thought to be a mechanism evolved to alert people when they are being excluded. Çivitci & Çivitci (2009) also found that self-esteem mediated the relationship between self-concept and loneliness. Teneva & Lemay Jr (2020) found that experiences of loneliness were recalled strongly and created biases, making people who were lonely before have higher tendencies to predict that they will excluded in the future. Geukens et al. (2022) found that in Dutch adolescents, fear of negative evaluation was positively correlated to loneliness, while self-esteem was negatively correlated.

Such existing research, therefore, creates a need to examine the impacts of such findings in Indian populations as well. Cultural differences in loneliness and self-esteem have been predicted by scholars like

Barreto et al. (2021). Sandilya & Singh (2020) studied loneliness, social support, and quality of life in older Indian adults. They reported that females had more social support, males reported a higher quality of life, and loneliness was not significantly different between genders. Singh & Srivastava (2014) found that loneliness and quality of life were correlated in older adults. They found that women had higher loneliness and lower quality of life, a complete flip of the more recent research.

There have also been studies examining the difference in self-esteem between men and women. Kling et al. (1999) conducted a meta-study and found that adolescent males had a slightly higher global self-esteem than women. Schwalbe & Staples (1991) found that men and women did not differ much in the sources of self-esteem — reflected appraisal, self-perceived competence and social comparison were of similar importance for men and women. Marcic, R., & Grum, D. K. (2011) found no significant difference in independent self-concept and self-esteem, but there was a difference in inter-dependent self-concept. Kitayama, Markus and Lieberman (1995) also asserted the cultural differences on the construction of self-esteem. Through the review of the literature, the evidence for a connection between loneliness and self-esteem is evident, yet since there are cultural differences in both variables, there is a need to study the Indian adolescent population. This study also aims to examine gender differences in this age group.

Hypotheses

This study employs a survey method to test the following three hypotheses:

H1: Loneliness will be negatively correlated to self-esteem in boys and girls.

H2: There will be a significant difference in loneliness between girls and boys.

H3: There will be a significant difference in self-esteem between girls and boys.

Method

Sample

To test this hypothesis, a sample of N = 544 participants from India were surveyed. There were 257 males and 287 females. Adolescents between 15 and 20 years were surveyed, with the average age being 16.36 (SD= 1.15). The sampling method was random sampling from local schools from all over the country.

Tools

Loneliness was measured using the "Revised UCLA Loneliness Scale" (Russell, Peplau, & Ferguson, 1978). This scale has 20 items and uses a 4-point Likert scale, the minimum score is 20 and the maximum score is 80. Its psychometric properties are adequate, with high reliability (McWhirter, 1990) and validation in adolescent populations (Mahon, Yarcheski and Yarcheski, 1995).

Self-esteem was measured with the Rosenberg Self-Esteem Scale (1965). This has 10 items and also uses a 4-point Likert scale, the minimum score is 10 and maximum is 40. It has convergent validity between (.56 and .83) and high test-retest reliability with a correlation coefficient of 0.85. This scale was chosen keeping in mind the findings of Hu et al. (2013) about explicit self-esteem being linked to loneliness.

Results

The results of the study are presented in Tables 1 and 2. Table 1 shows that the Pearson correlation value was -.412 and was significant at 0.001 level. This indicates a moderate correlation between the variables. This supports hypothesis 1 and indicates that self-esteem and loneliness are negatively related to each other.

Table 2 shows that the difference between self-esteem was significant between males and females. Males had a higher average self-esteem (M = 17.4, SD = 7.40) than females (M= 14.6, SD = 6.03), and the t-statistic was 4.82 (p<.001). However, the difference between loneliness in both genders was not significant. Thus, hypothesis 2 was rejected, and hypothesis 3 was accepted.

Table 1. Shows Pearson's Correlation between Loneliness and Self-Esteem

	Loneliness	Self Esteem
Loneliness	—	
Self Esteem	-0.412***	—

Note. * p < .05, ** p < .01, *** p < .001

Table 2. Independent Samples T-Test for Loneliness and Self-esteem between Males and Females

		Mean	SD	t-statistic	p
Loneliness	Males	50.7	8.11	1.82	0.069
	Female	51.9	7.79		
Self Esteem	Male	17.4	7.40	4.82	< .001
	Female	14.6	6.03		

Discussion

Hypothesis 1 and 3 were supported in this study. There is a significant difference between the self-esteem of boys and girls, and there is a correlation between loneliness and self-esteem. However, there was no significant difference in loneliness between the two genders that were studied. The first hypothesis has support from literature as well (Çivitci & Çivitci, 2009). As predicted by the Sociometer theory, self-esteem seems to be a mechanism to prevent individuals from being excluded (Leary and Baumeister, 2000). The evolutionary reasons for this have been asserted by several studies (Cacioppo, Cacioppo & Boomsma, 2014; Boomsma et al., 2007; Jones, Freemon & Godwick, 1981). This is significant since self-esteem and loneliness are linked to several other factors like adolescent depression (Yaacob et al., 2009), social anxiety (Ma et al., 2014), poor health (Mahone et al., 1993) and psychosomatic complaints (Ponzetti Jr, 1990).

Research also supports the findings of hypothesis 3; there is much evidence on gendered differences in self-esteem (Schwalbe and Staples, 1991; Kling et al., 1999; Marcic and Grum, 2011). Women were found to have lower self-esteem and despite having similar sources of self-esteem. Women are also at higher risk of depression and anxiety disorders. One underlying factor for this could be the differences in self-esteem. Kitayama, Markus and Lieberman (1995) believed that there are cultural differences in how self-esteem is conceptualized. Perhaps the UCLA scale does not measure these cultural differences. It is also possible that self-esteem could mean different things for men and women within a culture.

With respect to the second hypothesis, Girls (M = 51.9, SD = 7.79) and boys (M = 50.7, SD = 8.11) differed very little in loneliness scores. Though females were slightly higher, there was no significant difference. Some studies have pointed out that women are likelier to report loneliness (Boys and Perlman, 1985). However, the similar scores in this study may indicate that the higher self-esteem in these boys allows them to admit they are lonely, but they may not see it as a problem. Another possible explanation is that boys in this cultural setting believe that being lonely is natural for their age or gender and thus report it without inhibition, unlike the results seen in the study by Borys & Perlman (1985). Loneliness and self-esteem may not have a simple negative relationship; other factors act as mediators

or moderators. Different stress responses in males and females - fight-or-flight (Cannon, 1932) and tend-and-befriend (Taylor et al., 2000) may play a role in how low self-esteem and high loneliness are coped with in these two genders.

Conclusion

This study shows that in Indian adolescents, boys tend to have higher self-esteem than girls and loneliness is negatively correlated to self-esteem irrespective of gender. The study used a large sample size, reliable tools and established statistical techniques to prove its results. However, this study is not without limitations. Though a significant difference in the t-test and correlation is shown, no causative mechanism can be understood from the present study. There is a need to examine biological, social or psychological reasons for such gendered patterns. Further, this study is inclusive of only two genders. However, as gender is being viewed as a spectrum, qualitative studies into loneliness and self-esteem across the spectrum can yield richer results. This study opens up further scope for analysis of the interactions between loneliness and self-esteem in the context of gender in Indian Adolescents. Since studies have also shown a change in the relationship between loneliness and self-esteem across the lifespan, future studies can also focus on these factors. The study shows that there is a need to study specific cultural patterns and develop methods to identify these risk factors in order to prevent or treat the consequences of low self-esteem and high loneliness.

References

Ayas, T., & Horzum, M. (2013). Relation between depression, loneliness, self-esteem and internet addiction. *Education*, *133*(3), 283-290.

Barreto, M., Victor, C., Hammond, C., Eccles, A., Richins, M. T., & Qualter, P. (2021). Loneliness around the world: Age, gender, and cultural differences in loneliness. *Personality and Individual Differences*, *169*, 110066.

Böger, A., & Huxhold, O. (2018). Do the antecedents and consequences of loneliness change from middle adulthood into old age? Developmental psychology, 54(1), 181.

Boomsma, D. I., Cacioppo, J. T., Muthén, B., Asparouhov, T., & Clark, S. (2007). Longitudinal genetic analysis for loneliness in Dutch twins. *Twin Research and Human Genetics*, *10*(2), 267-273.

Borys, S., & Perlman, D. (1985). Gender differences in loneliness. *Personality and Social Psychology Bulletin*, *11*(1), 63-74.

Cacioppo, J. T., Cacioppo, S., & Boomsma, D. I. (2014). Evolutionary mechanisms for loneliness. *Cognition & emotion*, *28*(1), 3–21.https://doi.org/10.1080/02699931.2013.837379

Cacioppo, J. T., Hawkley, L. C., Ernst, J. M., Burleson, M., Berntson, G. G., Nouriani, B., & Spiegel, D. (2006). Loneliness within a nomological net: An evolutionary perspective. *Journal of research in personality*, *40*(6), 1054-1085.

Cannon, W. B. (1932). Homeostasis. The wisdom of the body. Norton, New York.

Çivitci, N., & Çivitci, A. (2009). Self-esteem as mediator and moderator of the relationship between loneliness and life satisfaction in adolescents. *Personality and Individual Differences*, *47*(8), 954-958.

Elkind, D. (1967). Egocentrism in adolescence. *Child development*, 1025-1034.

Elkind, D. (1981). Understanding the young adolescent. In *The life cycle: Readings in human development* (pp. 167-176). Columbia University Press.

Faraone, C. A. (2011). Magical and medical approaches to the wandering womb in the ancient Greek world. *Classical Antiquity*, *30*(1), 1-32.

Geukens, F., Maes, M., Spithoven, A., Pouwels, J. L., Danneel, S., Cillessen, A. H., ... & Goossens, L. (2022). Changes in adolescent loneliness and concomitant changes in fear of negative evaluation and self-esteem. *International Journal of Behavioral Development*, *46*(1), 10-17.

Greenwald, A. G., & Banaji, M. R. (1995). Implicit social cognition: Attitudes, self-esteem, and stereotypes. Psychological Review, 102, 4-27. doi:10.1037/0033-295X.102.1.4

Hawkley, L. C., Burleson, M. H., Berntson, G. G., & Cacioppo, J. T. (2003). Loneliness in everyday life: cardiovascular activity, psychosocial context, and health behaviors. *Journal of personality and social psychology*, *85*(1), 105.

Heinrich, L. M., & Gullone, E. (2006). The clinical significance of loneliness: A literature review. *Clinical psychology review*, *26*(6), 695-718.

Hosseinbor, M., Ardekani, S. M. Y., Bakhshani, S., & Bakhshani, S. (2014). Emotional and social loneliness in individuals with and without substance dependence disorder. *International journal of high risk behaviors & addiction*, *3*(3).

Hu, Y., Jin, Y., Hu, C., & He, H. (2013). Loneliness and their relationship to explicit and implicit self-esteem. *Psychology*, *4*(5), 455-458.

Glaser, J. K. (2013). Loneliness promotes inflammation during acute stress. *Psychological science*, *24*(7), 1089-1097.

Fox, J., & Weisberg, S. (2020). *car: Companion to Applied Regression*. [R package]. Retrieved from https://cran.r-project.org/package=car.

Jaremka, L. M., Fagundes, C. P., Peng, J., Bennett, J. M., Glaser, R., Malarkey, W. B., & Kiecolt-

Jones, W. H., Freemon, J., & Goswick, R. A. (1981). The persistence of loneliness: Self and other determinants 1. Journal of Personality, 49(1), 27-48.http://dx.doi.org/10.1111/j.1467-6494.1981.tb00844.x

Kitayama, S., Markus, H. R., & Lieberman, C. (1995). The collective construction of self-esteem: Implications for culture, self, and emotion. In *Everyday conceptions of emotion: An introduction to the psychology, anthropology and linguistics of emotion* (pp. 523-550). Dordrecht: Springer Netherlands.

Kling, K. C., Hyde, J. S., Showers, C. J., & Buswell, B. N. (1999). Gender differences in self-esteem: a meta-analysis. *Psychological bulletin*, *125*(4), 470.

Koenig, L. J., Abrams, R. F., Rotenberg, K. J., & Hymel, S. (1999). Loneliness in childhood and adolescence.

Kong, F., & You, X. (2013). Loneliness and self-esteem as mediators between social support and life satisfaction in late adolescence. *Social Indicators Research*, *110*, 271-279.

Leary, M. R. (1990). Responses to social exclusion: Social anxiety, jealousy, loneliness, depression, and low self-esteem. *Journal of Social and Clinical Psychology*, *9*(2), 221-229.

Leary, M. R., & Baumeister, R. F. (2000). The nature and function of self-esteem: Sociometer theory. In *Advances in experimental social psychology* (Vol. 32, pp. 1-62). Academic Press.

Leigh-Hunt, N., Bagguley, D., Bash, K., Turner, V., Turnbull, S., Valtorta, N., & Caan, W. (2017). An overview of systematic reviews on the public health consequences of social isolation and loneliness. *Public health*, *152*, 157-171.

Ma, Z. W., Liang, J. J., Zeng, W. N., Jiang, S., & Liu, T. (2014). The relationship between self-esteem and loneliness: Does social anxiety matter?. *International Journal of Psychological Studies*, *6*(2), 151.

Maes, M., Qualter, P., Vanhalst, J., Van den Noortgate, W., & Goossens, L. (2019). Gender differences in loneliness across the lifespan: A meta–analysis. *European Journal of Personality*, *33*(6), 642-654.

Mahon, N. E., Yarcheski, A., & Yarcheski, T. J. (1993). Health consequences of loneliness in adolescents. *Research in nursing & health*, *16*(1), 23-31.

Mahon, N. E., Yarcheski, T. J., & Yarcheski, A. (1995). Validation of the revised UCLA Loneliness Scale for adolescents. *Research in Nursing and Health, 18*, 263–270.

McWhirter, B. T. (1990). Factor analysis of the revised UCLA Loneliness Scale. *Current Psychology: Research and Reviews, 9*, 87–99.

Meltzer, H., Bebbington, P., Dennis, M. S., Jenkins, R., McManus, S., & Brugha, T. S. (2013).Feelings of loneliness among adults with mental disorder. *Social psychiatry and psychiatric epidemiology*, *48*, 5-13.

Olmstead, R. E., Guy, S. M., O'Malley, P. M., & Bentler, P. M. (1991). Longitudinal assessment of the relationship between self-esteem, fatalism, loneliness, and substance use. *Journal of Social Behavior and Personality*, *6*(4), 749.

Pariante, C. M., & Lightman, S. L. (2008). The HPA axis in major depression: classical theories and new developments. *Trends in neurosciences*, *31*(9), 464-468.

Pedersen, C. A., & Boccia, M. L. (2002). Oxytocin links mothering received mothering bestowed and adult stress responses. *Stress*, *5*(4), 259-267.

Ponzetti Jr, J. J. (1990). Loneliness among college students. *Family relations*, 336-340.

R Core Team (2022). *R: A Language and environment for statistical computing*. (Version 4.1) [Computer software]. Retrieved from https://cran.r-project.org. (R packages retrieved from CRAN snapshot 2023-04-07).

Rumas, R., Shamblaw, A. L., Jagtap, S., & Best, M. W. (2021). Predictors and consequences of loneliness during the COVID-19 pandemic. *Psychiatry Research*, *300*, 113934.

Russell, D., Peplau, L. A., & Ferguson, M. (1978). Developing a measure of loneliness. *Journal of Personality Assessment, 42*, 290–294.

Sandilya, R., & Singh, R. (2020). Relationship between quality of life, social support and loneliness among male and female older adults. *Indian Journal of Gerontology*, *34*(4), 428-438.

Schmitt, J. P., & Kurdek, L. A. (1985). Age and gender differences in and personality correlates of loneliness in different relationships. *Journal of Personality Assessment*, *49*(5), 485-496.

Schwalbe, M. L., & Staples, C. L. (1991). Gender differences in sources of self-esteem. *Social Psychology Quarterly*, 158-168.

Singh, K., & Srivastava, S. K. (2014). Loneliness and Quality of Life Among Elderly People. *Journal of Psychosocial Research*, *9*(1).

Steptoe, A., Owen, N., Kunz, E. S., & Brydon, L. (2004). Loneliness and neuroendocrine, cardiovascular, and inflammatory stress responses in middle-aged men and women. Psychoneuroendocrino, 29 (5): 593-611.

Taylor, S. E., Klein, L. C., Lewis, B. P., Gruenewald, T. L., Gurung, R. A., & Updegraff, J. A. (2000). Biobehavioral responses to stress in females: tend-and-befriend, not fight-or-flight. *Psychological review*, *107*(3), 411.

Teneva, N., & Lemay Jr, E. P. (2020). Projecting loneliness into the past and future: Implications for self-esteem and affect. *Motivation and Emotion*, *44*(5), 772-784.

The jamovi project (2023). *jamovi*. (Version 2.4) [Computer Software]. Retrieved from https://www.jamovi.org.

Weidinger, B. (1992). Einsamkeit und ihre Auswirkung auf das subjektive Krankheitsempfinden bei über 60jährigen Patienten in der Allgemeinarztpraxis (Doctoral dissertation, Uitgever niet vastgesteld).

Weiss, R. (1975). Loneliness: The experience of emotional and social isolation. MIT press.

Wilson, T. D., Lindsey, S., & Schooler, T. Y. (2000). A model of dual attitudes. *Psychological review*, *107*(1), 101.

Yaacob, S. N., Juhari, R., Talib, M. A., & Uba, I. (2009). Loneliness, stress, self-esteem and depression among Malaysian adolescents. *Jurnal Kemanusiaan*, *7*(2).

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