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### The Connection of Gendered Suicide Prevalence with Third Party Factors to Suicide Hospitalization and Counselling Intervention

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**Abstract:**

This meta-analysis will look into five cross-sectional surveys that explore the prevalence of suicide with third party factors. These third party factors are (1) suicide methods, (2) separation/marital status, and (3) religion. This meta-analysis will ignore racial and ethnic influences on the prevalence of suicide because race/ethnicity is a broad topic with heavy influence on the prevalence of suicide. It could skew the prevalence of the supplementary attributes of suicide methods, separation/marital status and religion. For example, African American women are claimed to have lower rates of suicide than other women (and men) in the United states because of their possible access to preventative suicide factors including social support, religiosity, negative attitudes regarding suicide acceptability, and African American culture (Marion & Range, 2003). The research on suicide methods with gendered prevalence of suicide methods will be used to analyse the clinical social work relevance of hospitalization because it is closely related to suicide hospitalization intervention. The research about separation/marital status and religion with gendered prevalence of suicide will be used to look into improvements of suicide counselling interventions. As men are more likely influenced by the factors of separation/marital status, and religion, it may be looked into how we can specialize suicide counselling intervention to accommodate their life experiences even further to increase the effectiveness of overall social work suicide intervention. This meta-analysis may be best sought out as a developed hypothesis for future research.

*Keywords: Suicide Intervention, Suicide Hospitalization, Suicide Methods, Separation, Marital Status, Religion and Suicide, Suicide Prevalence*

Suicide is commonly known as the intentional act of killing oneself. Suicidal ideation can be viewed as a psychiatric crisis, where suicide itself can be viewed as a permanent solution to a treatable problem. Suicide is often associated with biological, psychological, social and spiritual factors (Shebib, 2014). Some examples include family history of suicide attempts, co-occurring disorders, lack of support, etc (Neil & Salvatore, 2011). As a psychiatric crisis, one can see how prominent suicidal ideation can shift someone to a position of vulnerability. Suicidal ideation connects to the clinical field of social work through crisis intervention, which are attempts made to prevent the self, imminent harm of suicide of those who are at risk. Suicidal ideation comes in both an active and a passive form. Active suicidal ideation refers to the desire to die accompanied with a plan to proceed to take one's own life. Passive suicidal ideation refers to the desire to die, but there are no plans to do so (Marlowe, 2017). Active suicidal ideation is typically considered valid enough for emergency hospitalization as an initial intervention method. Passive suicidal ideation is not considered an emergency, and the initial intervention method would be through counselling intervention (Examples: creating a safety plan, discussing lifestyle changes, finding support).

Suicide is a public concern because it affects the general Canadian population. In Canada, suicide became the second leading cause of death for those between ages 10 to 24, and accounts for 24% of deaths for those between ages 15 to 24 (Canadian Mental Health Association, 2013). As well as 73% of hospital admissions for suicide attempts were for those between ages 15 to 44 (Canadian Mental Health Association, 2013).

Intersectionality, the connection between one person's multiple social categorizations, plays a large role in determining the likelihood of one's risk of suicide. This meta-analysis will research on gender (male/female) with the third party factors (methods, separation, religion) and their affects on the prevalence of suicide. From this research, the meta-analysis will look into how gender and these factors for suicide prevalence connects to hospitalized suicide intervention (Emergency hospitalization) and suicide counselling intervention (Working with a counsellor).

## Methods

### Sample of Studies

Searches conducted happened in December of 2016 through the following databases: *Academic OneFile, Google Scholar, Sage Journals, and University of Windsor Library Database*. The following key terms were used as item searches: (1) suicide gender difference(s), gendered suicide, male suicide, or female suicide (2) suicide hospitali\*ation, and (3) suicide counsel(ling). A number of studies have been chosen based off availability due to lack of research in this topic to examine gender differences of suicide for suicidal methods, separation/marital status, and religion. These studies will be identified in the references with an asterisk.

### Description of Studies

All studies are cross-sectional surveys, as this meta-analysis emphasises on the prevalence of suicide with the supplementary factors of suicide methods, separation/marital status, and religion. It was rather difficult to find studies on these supplementary factors for people of colour. Due to this reason, all studies are from a White/European perspective where the majority of people present in the studies are White/European. The studies by Rahme et al. (2016) and Callanen et al. (2012), both focus on prevalence of suicide with suicide methods. Both studies will be used to discuss about the clinical relevance of suicide in hospitalization from a social work perspective. Rahme et al. (2016) solely focuses on suicide hospitalization because the nature of the study is set at hospitals. The studies by Kõlves et al. (2010) and Kposowa (2000) will focus on the prevalence of suicide with relationship separation and marital status. These studies will be used to look into improving the effectiveness of suicide counselling intervention. The study by Kovess-Masfety et al. (2011) will look into the prevalence of suicide with religion and will also be used to look into improving the effectiveness of suicide counselling intervention. A chart with significant key points of each article is available at the final page of this meta-analysis (after the references page) for readers to compare and contrast some studies with one another.

## Findings

### Gendered Prevalence of Suicide and Hospitalization

In suicide hospitalization intervention, there is a dichotomy of emergency suicide hospitalization and general suicide hospitalization. Emergency refers to injury so severe that it requires immediate treatment, whereas general suicide hospitalization are triaged. A cross-sectional survey of 2 general hospitals in Montreal found that of the 369 suicide attempters, 176 were sent to the emergency department and 193 were hospitalized (Rahme et al., 2016). The survey has a randomized population sample in specified geographic location. The number of men and women in the study were about half and half (47% men, 53% women). A distinction in the study is that women were found to be four times more likely to poison themselves versus injury (which is more likely in men), and 46% of the 369 suicide attempts were from poison intake (refer to Table 1 Charted Key Points of Studies Reviewed for Gender Differences Influence on Suicide). Only 13 cases of poisoning (0.035% of all attempts) were validated for the emergency department, where as the rest were triaged. Interpreting this information would mean that women would be less likely than men to be sent to the emergency department for a suicide attempt as their generalized methods of suicide are less lethal than men. The information from the study does align with other scholarly literatures, where women are found to attempt suicide three to four-folds as often as men, but men use more lethal methods and are 75% of all successful suicides (Shebib, 2014). The study itself is strong in terms that it does have a large sum of participants. We do see the differentiations where both genders are positioned for suicide attempt methods. However, the study is unable to pinpoint if gender can be affecting the quality of suicide hospitalization. Although, it is likely theorized that hospitalization would not be affected by gender because hospitals work under policy-driven standards. For example, how patients are being triaged (prioritized by the level of injury) and how they are given treatments (such as an antidote for suicidal poison intake) would remain the same for both genders.

A cross-sectional survey of 621 completed suicides were collected through data. The suicides

were from between 1997 to 2006 in Summit County, Ohio (Callanan et al., 2012). The study focuses on gender difference of suicide methods and has the hopeful goal of replicating and reinforcing previous conducted studies on the same topic. Of the 621 suicides, 480 were men (77.3%) and 141 were female (22.7%). The authors report that their male to female ratio of completed suicides align with another study where their ratio was 78.2% men and 21.8% women. The significant data found in this study is the percentage of suicides that certain methods made. Some other demographics from the study is that the study found that the mean age of all the completed suicides was 45. Twenty-three percent of suicide was from those under 30 and 18.8% for those over 65, leaving 58.2% of suicides committed by those between ages 30 and 64. Also, 31% were married, 36% were single, 26.1% were separated, and 6.9% were widowed. Hanging/strangulation was the cause of death at 23.1% for men and 15.6% for women. Use of firearms accumulated for 51.8% of deaths for men and 38.3% for women. Finally, death by poisoning made up 6.9% of death in men and 22% in women (See Table 1). The confidence level that 38.3% of female deaths from suicide by firearms is  $p < 0.01$ , and the confidence level that 22% of female deaths from suicide by poisoning is  $p < 0.001$ . All other statistics are at a confidence level of  $p < 0.05$ . The findings here completely align with the previous survey analysed, where men are more likely to follow more lethal methods of suicide (like hanging and firearms) and where women are about 3 to 4 times to self-poison than men (the Rahme et. al. study states 4 times more likely than men, whereas this study finds it to be slightly less than 3 times). This study is a strong study in the sense that its information is quite confident, supports all the previous points of hospitalization (such as men being more likely to be in the emergency department of hospitalization due to level of lethality), and aligns with previous findings and conclusions for hospitalization.

### **Gendered Prevalence of Suicide and Counselling Intervention**

A cross-sectional survey of 228 separated men and 142 separated women was conducted in Australia (Kölves et al., 2010). The study focused on the suicide prevalence between men and women

post-separation. The sample was found using a convenience sample method by contacting separated individuals who contacted counselling and help services between 2006 and 2007. Psychosocial factors were identified and the multinomial logistic regression was applied to estimate independent contribution of significant predictors. For categorial variables, odd ratios with 95% confidence interval, and continuing variables, t-tests were calculated. Results of the study found that men had increased risk of suicide post-separation for almost all levels of suicidal ideation even after adjusting for social factors (See Table 1). Though, the confidence intervals of some psychosocial factors analysed were not significant, while some were. Approximately, the amount of information that was stated to be confident ( $p < 0.05$ ) in the study was about half. For example, looking into the authors' t-test of continuing variables of separated males and females, the t-test found a p-value of  $<0.0001$  for scaled measurements scores of shame, self-esteem and state shame in separated men (extremely statistically confident). On the contrary, the continuing factors of totalling number of life events, active problem solving, and alcohol score were not statistically confident with confident intervals above 0.05. It is important to look into Kõlves et al.'s (2010) study in comparison to other studies due to the lack of statistical confidence. A meta-analysis (Scourfield & Evans, 2015) looks into gender difference of suicide in separated males versus females, where one of the studies analysed is of Kõlves et al.'s (2010). This analysis found that after divorce, the factors that come with being suicidal for men are generally men's lack of inflexibility of roles with loss of honour (from loss roles like family man), stress with legal negotiations, need for control, and weak social networks. This meta-analysis would find that Kõlves et al.'s (2010) results (of men being more suicidal in nearly all levels of suicidal ideation) does match with similar results and findings to many other studies of the topic. A suggestion for how suicide counselling can become more effective for men in the situation of post-divorce is to address on these factors during the counselling. However, it is important to mention that addressing these factors during suicide intervention for women may not be effective because women have not shown similar attributes for suicidal ideation post-separation. For example, the risk of suicidal ideation

was not observed in women who had legal negotiations and property/financial issues after divorce study Kõlves et al.'s because of the women who were suicidal, zero of them claimed to be suicidal due to the stress of legal negotiations and property/financial issues. For men, in the situation of post-divorce, they are approximately eight times more likely to die from suicide (Scourfield & Evans, 2015). Men could highly benefit from specialized suicide counselling intervention compared to women post-separation.

A cross-sectional survey of men and women went through a database of a national survey and found 545 people who were found to suicide during the years between 1979 to 1989. Rate ratios (RR) were calculated and used to measure the incidence rates of each marital status. Of the 545 people, 432 were male and 113 were female. In men, 241 were married (RR = 1.00), 118 were single (RR = 1.16), 57 were divorced (RR = 2.47), 15 were widowed (RR = 1.58) and 1 is unknown (RR = 0.21). Although more married men committed suicide, the rate ratio of divorced men significantly higher than other marital statuses and it's confidence/significance was  $p < 0.01$ . In women, 69 were married (RR = 1.00), 14 were single (RR = 0.62), 12 were divorced (RR = 1.10), 16 were widowed (RR = 0.86), and 2 were unknown (RR = 4.81). Women were not found to have a lot of difference in rate ratios between marital statuses, except for the unknown category, but that category becomes invalidated in the sense that the marital status is unknown and very small. Overall, the study found that (in terms of marital status), men were 4.8 times more likely to commit suicide as women. Marital status and difference in suicide prevalence was found to be significant in men where divorced men were 2.5 times more likely to die from divorce than married men (See Table 1). Marital status and difference in suicide prevalence is not observed in women. This study did align in the sense that men are more likely to suicide, especially post-separation, which one identified in the study of Kõlves et al. In its connection to social work practice of intervention, we can again, consider the importance of specifying suicide intervention to assess direct influences of suicide prevalence for post-separation as their reason for suicide has been supported by previous studies and literature to be attributes that come with separation.



A cross-sectional, population-based, household survey of men and women in France and Spain was conducted for the prevalence of suicide (Kovess-Masfety et al., 2011). A factor the study thoroughly researches is suicide in relation to religion. The differentiations shown in their survey is whether they are from France or Spain and if they are male or female. At a confidence interval of 95%, odds ratios (OR) were based on those declaring a religion to those who did not declare religion for the intent of suicide or having attempted suicide. All odds ratios found are adjusted for age, education, unemployment status, mood disorders, parental bonds, marital status, lifetime use of antidepressants, and health service usage. The total of those surveyed in each distinct category goes as follows: 789 French women, 1221 Spanish women, 557 French men, 780 Spanish men (See Table 1). The following odd ratios were found for suicidal ideation of people with any declared religion and the demographic categorisations: 0.74 OR for French women, 0.53 OR for Spanish women, 0.77 OR for French men, and 1.55 OR for Spanish men. Women in this category were found to have a p-value of 0.7 (statistically insignificant), and men were found to have a p-value of 0.5 (statistically significant). The following odds ratios were found for suicide attempts with any declared religion and the demographic categorisations: 2.95 OR for French women, 1.10 OR for Spanish women, 3.21 for French men, and 10.98 for Spanish men. Women in this category were found to have a p-value of 0.08 (statistically significant), and men were found to have a p-value of 0.4 (statistically significant). With these odds ratios, it can be considered that Spanish men would have religion as a risk factor with suicidal ideation and especially with suicide attempts. It can be considered in suicide counselling interventions that a specialization of understanding religion can be effective in the intervention for those who are religious and suicidal. Unfortunately, even though Spanish men are much more likely to report being religious and suicidal than other demographic communities, they are shown in the study to not use religion as a problem solving technique. Spanish women are found with an odds ratio of 1.42 to problem solve with religion, whereas Spanish men are only found with an odds ratio of 0.37. Due to this finding, it may actually be more effective to have religiously related suicide counselling for women. This is also

evident in the suicidal French demographic where French women have an odds ratio of 3.64 for problem solving with religion, whereas men have an odds ratio of 1.55. P-value for women in this category is 0.08 (statistically significant), and for men is 0.7 (statistically insignificant). The authors suggest that because of a lower number of responses among men, stable estimates could not be converged using religiosity variables as risk factors for suicidal ideation and attempts, but this was not an issue with the responses of women. It is still viable to suggest that the use of religion in suicide counselling intervention can be more effective for women.

### **Results and Conclusions**

Generally, hospitalization creates high-risk for suicidal people after discharge, and suicide interventions such as a self-help plan allows for patient insight (Neil & Salvatore, 2011). Policies have driven hospitalization to become high-risk because even during the process of hospitalization, the risk is evident. In the hospitalization environment, there is a lack of stimulation for the patient aside from tubing, oxygen tents, and a summoning button. This alienation can lead to delirium and acute psychotic reactions, especially for patients in crisis; the case of a suicide attempt would be considered a psychiatric crisis (Sands, 2010). It has been represented in the studies within this meta-analysis that men are more likely to be in the emergency department. Both emergency suicide hospitalization and general suicide hospitalization has not been represented in the studies to find any increase or decrease of effectiveness based on gender differences. This is something that would need to be further researched.

On the other hand, gender has proven in studies and literature to possibly be a prominent factor for suicide counselling interventions. From what was found in the studies, it could be suggested that adjusting suicide counselling intervention methods to accommodate gender difference could increase the effectiveness of the intervention. For example, having a stronger understanding of on mid-life crisis related issues can be critical for increasing the effectiveness of suicide intervention as the majority of suicides were prominent in mostly people over the age of 30. Concluding from these studies, a focus on

special topics, such as divorce and religion, can be engrained into suicide counselling intervention to increase the effectiveness of the intervention for divorced or religious men. A focus on religion for religious women can intensively increase the effectiveness of suicide interventions as women were shown to use religion as a problem solving technique, but a focus on divorce may not be effective in intervention because of a lack of suicide prevalence due to separation for women. Of course, these topics would also need to be further researched to see alignment in literature and studies. Especially in the case of religion and gendered prevalence of suicide, where a lack of literature was found on this specified topic. It could be also argued that ethnic groups and sexual minorities may need to be more represented in these studies to truly understand the effects of suicide methods, separation/marital status, and religion on the prevalence of suicide in the general population.

## References

- \*Callanan, V. J., & Davis, M. S. (2012). Gender differences in suicide methods. *Social Psychiatry and Psychiatric Epidemiology*, 47(6), 857-869.
- \*Kõlves, K., Ide, N., & De Leo, D. (2010). Suicidal ideation and behaviour in the aftermath of marital separation: Gender differences. *Journal of Affective Disorders*, 120(1-3), 48-53.
- \*Kovess-Masfety, V., Boyd, A., Haro, J., Bruffaerts, R., Villagut, G., Lépine, J., Alonso, J. (2011). High and low suicidality in Europe: A fine-grained comparison of France and Spain within the ESEMeD surveys. *Journal of Affective Disorders*, 133(1-2), 247-256.
- \*Kposowa, A. (2000). Marital Status and Suicide in the National Longitudinal Mortality Study. *Journal of Epidemiology and Community Health* (1979-), 54(4), 254-261.
- Marion, M. S., & Range, L. M. (2003). African American College Women's Suicide Buffers. *Suicide and Life-Threatening Behavior*, 33(1), 33-43.
- Marlowe, J. (2017, July 27). Active vs. Passive Suicidal Ideation. Retrieved February 27, 2018, from <https://healthfully.com/active-vs-passive-suicidal-ideation-5681297.html>
- Nell, R., & Salvatore, T. (2011). Suicide factors: UNSAFE or SAFER? *Current Psychiatry*, 10(1), 35.
- \*Rahme, E., Low, N. C., Lamarre, S., Daneau, D., Habel, Y., Turecki, G., Lesage, A. (2016). Correlates of Attempted Suicide from the Emergency Room of 2 General Hospitals in Montreal, Canada. *The Canadian Journal of Psychiatry*, 61(7), 382-393.
- Sands, R. G. (1983). Crisis Intervention and Social Work Practices in Hospitals. *Health and Social Work*, 8(4), 253.
- Scourfield, J., & Evans, R. (2015). Why Might Men Be More at Risk of Suicide After a Relationship Breakdown? Sociological Insights. *American Journal of Men's Health*, 9(5), 380-384.
- Shebib, B. (2014). *Choices: Interviewing and counselling skills for Canadians*.
- Suicide Statistics - Canadian Mental Health Association, Toronto Branch. (2013). Retrieved December 09, 2016, from [http://toronto.cmha.ca/mental\\_health/suicide-statistics/](http://toronto.cmha.ca/mental_health/suicide-statistics/)

## Appendix 1

Table 1: Charted Key Points of Studies Reviewed for Gender Difference Influence on Suicide

Suicide-influencing factor and Citation	Type of study and Additional Comments	Male Differences	Female Differences	No Differences
Gendered Suicide Methods (Rahme et al., 2016)	Cross-sectional survey of 2 general hospitals in Montreal. Suicide attempters: n=369	Men were found more likely to use more lethal methods than women (E.g., severe injury).	Women were found to be 4 times more likely (than men) to poison/use two suicide methods concomitantly.	About half of the total participants were men, half women.
Gendered Suicide Methods #2 (Callanan et al., 2012)	Cross-sectional survey of data: n=621 completed suicides.	Also found that men were more likely to use more lethal methods of suicide than women.	Women were also found to be a little more than 3 times likely to poison than men.	Similar percentage of suicides committed in house.
Post-separation in a committed relationship/Post-Divorce (Kölves et al., 2010)	Cross-sectional survey of separated men and women. n=370; (228 men, 142 women)	Men had increased risk for nearly all levels of suicidal ideation even after adjusting for age, education, full-time employment, and children with previous partners.	Women were found to initiate separation/have a joint decision more than 3 times than men.	Lack of similarities between men and women in this study.
Marital Status (Kposowa, 2000)	Cross-sectional survey of 545 suicides.	Divorced men found to be at a 2.5 rates ratio for suicide compared to married men	Women were found to not be affected by marital status for their prevalence of suicide	Rate ratios both at 1.00 for married men and women.
Religious Presence (Kovess-Masfety et al., 2011)	Cross-sectional survey of suicidal men and women. Categorised by French/Spanish and gender.	Spanish men's odd ratio found to be 10 folds more than Spanish women's odd ratio to be religious and have attempted suicide.	French and Spanish women found to more likely to problem solve with religion. More women than men in study.	French Men and women similar odds ratio for suicide attempts.

Notes: CI = Confidence Interval. n = number of people. E.g. = Example given.

These critically reviewed studies will be identified in the reference list with an asterisk (\*).