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# Critique of a Hospital-Based Intervention for Patients with Substance Use Problems

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# June 3, 2013

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Critique of a Hospital-Based Intervention for Patients with Substance Use Problems

Many patients that are admitted into the hospital for psychiatric treatment often suffer from substance abuse as well, but without an adequate evaluation and assessment of the patient, many who need substance abuse intervention are not treated. “The Effectiveness of a Hospital-Based Intervention for Patients with Substance-Use Problems in the Western Cape” is an article evaluating the effectiveness of a substance abuse intervention model in the Western Cape of South Africa (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). This article expresses the colossal concern with substance abuse among the population of South Africa. As noted by the South African Medical Journal, “the recent South African stress and health study indicated a high lifetime prevalence (13.3%) and early onset (21 years) of such disorders” (p. 634). Therefore, this study introduces the SBIRT program and its implementation in a substance-abuse intervention model and its efforts to provide intervention for patients who would typically go without, due to lack of intervention opportunity.

**Problem Formulation, Sampling and Measurement**

The research discussed in this article addressed the concern with the lack of substance-abuse interventions administered to those who would greatly benefit from it. According to South African Medical Journal, “district hospitals regularly experience a high incidence of substance-use disorders, but rarely provide interventions” (p. 634), where existing services are described as “overwhelmed by the demand for treatment” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). Therefore, the population being addressed and researched in this study are those who reside in the Western Cape who suffer from “probable substance use” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). The goal of this research was to prove that “screening, brief intervention, and referral to treatment (SBIRT) is effective for addressing mild to moderate substance-related problems and is feasible to implement” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). This study examined whether expanding of the range of treatment in hospitals to include substance-abuse interventions would greatly increase access to these services. As noted in the South African Medical Journal the hypothesis of this study was; that with an increased range of treatment and “lower threshold, less costly early interventions” (p. 634) there will be a decreased rate of substance-abuse among the population of South Africa, specifically the Western Cape.

The sample was selected through probability sampling. According to the South African Medical Journal, over a seven month period patients in need of substance abuse treatment were referred to the substance abuse services center; which was put into effect through this study, within the G F Joosie Hospital (p.634). Once referred, the patients were tested using “a modified version of the alcohol, smoking and substance involvement screening test (ASSIST)” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012) in order to evaluate their level of substance abuse and establish their place in the intervention. The sampling frame was the population referred to the center by the hospital. The advantage of this strategy is that the sample was more likely to be a valid, highly representative sample because the researchers were able to establish who required intervention. The disadvantage to this strategy is that t with this sampling frame those asome that did not enter the hospital will not be represented in the sample. . If the sample frame were broadened, encompassing not only hospital referrals but self admits and referrals from other human service agencies the sample would have had the probability of being more diverse and would have reached a larger percentage of the target population. The sample of “127 substance-use patients, 88% were male, 78% were single, with an average age of 30 years, Black African and colored participants comprised 47% each” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012).

In order to find the key variables of the research study there first must be clarification of what is considered to be a “substance”. In this study substance abuse involves, alcohol, methamphetamine, cannabis, mandrax, and opioids (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). The key variables in this study are the prevalence of substance abuse among the population of the Western Cape and the availability of treatment services to this population. The independent variable is the availability of treatment and the dependent variable is the prevalence of substance abuse. In this study the mediating variable would be the level of availability of treatment to the population in need. Through this study the researchers were hoping to show that with increased availability to substance abuse intervention there will be a decrease in the overall prevalence of substance abuse among the population. According to the South African Medical Journal participants in this intervention were categorized after initial evaluation as “low, moderate, or high risk depending on the severity of substance abuse” (p. 634). “Low”, “moderate”, and “high” would be the moderating variable, in that the level of intervention would vary dependent upon how the participant was categorized. The independent and dependent variable were measured through what is described in the South African Medical Journal as an “uncontrolled pre-test and post-test” in which participants explained their prevalence of substance use and the availability and utilization of treatment. The final outcome could have been different if the independent variable was defined as utilization of treatment rather than availability of treatment. The availability of services does not necessarily mean that the participants will continue to utilize these services so the outcome may have been different if they were measuring the utilization of services and not just the availability of services.

**Research Design and Data Collection**

The research design used in this study is the basic single case design. This study was evaluating the effectiveness of an alternative and supplemental substance abuse intervention. Within this study the researched conducted a pretest to evaluate the baseline level of substance abuse at the beginning of the intervention and then again after the intervention in order to evaluate the effectiveness of this alternative treatment. Three months later the participants were then given the ASSIST again in order to evaluate percentage of relapse (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). The advantage of this basic single-case design is that through the pretest the researchers are able to understand the participants’ baseline and ensure that the participants are all eligible and require the intervention. Through the post-test the researchers are able to clearly evaluate the effectiveness of the intervention by comparing the pre-test to the post-test and by evaluating once again three months later the researchers are able to evaluate whether or not the participants have regressed and whether or not they are still seeking treatment. The disadvantages to this design in this study is that there is only one baseline to compare the results to, as stated by (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012), “an uncontrolled one-group pre- and post-test outcomes evaluation was performed by an independent external evaluator” (p. 634). Therefore without repeating the intervention to check reliability there is no clear way to ensure that the results were 100% due to the intervention and not a third variable. All this design is able to do is prove whether or not this substance-abuse intervention model is effective on these particular participants referred by the hospital.

The data collected in this study was compiled through pre- and post-tests administered by a social worker and research assistant and taken by the participants. The participants socio-demographic information was also collected (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). The ASSIST was given to the participants in order to gather information on their substance use as explained in the South African Medical Journal:

“The ASSIST – validated in several developing countries – was administered to assess the extent of problematic substance use. A substance-use involvement score was calculated for each substance use in the preceding 3 months. In the case of multiple substances, only the highest score was included in the total score” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012, p. 634)

Along with the ASSIST the participants were also asked questions in order to gain an understanding of, as the South African Medical Journal describes as, “potential barriers to treatment” as well as reasons for not utilizing further treatment that was referred to them (p. 634). The advantage to this data collection method is that the data was collected before the intervention and after in order to compare results. In addition to the the ASSIST clients were asked to report their thoughts and feelings about treatment and the availability to treatment in order for the researchers to gain a better understanding regarding barriers to treatment. The disadvantage of this data collection method is that it is does not provide precise information as would be provided through quantitative data. However, the qualitative data would provide deeper information. . Repetition of the intervention would be imperative in order to prove correlation between increased supplemental treatment and decreased substance use within a hospital setting.

**Ethics and Cultural Considerations**

This research study did not specifically address cultural issues but through the data collection phase the research design did take into account socio-demographics and in their findings they did find a strong a correlation between treatment availability and race. The sample was male dominated and predominantly single as well as equally Black African and coloured. The study did provide an intervention for those who typically would not receive treatment due to lack of funding and availability. Although this research study could have been more culturally sensitive by expanding the sampling process by seeking out participants through other means than strictly referral. Many people that are from lower socio-economic classes cannot afford to go to the hospital; therefore, this program would not have been given the opportunity to be referred to the center for treatment. Also through having more self-admitted participants they may have gotten a more diverse range of participants.

Through this research study the researchers and all involved preserved the ethical rights of the participants by upholding self-determination of the clients as well as providing the participants with informed consent and information on the research study. They maintained integrity for the client and the profession and upheld the ethical code of competence by employing only competent social workers and researchers to oversee the study. They could have taken into consideration Code 1.05 Cultural Competence and Social Diversity in making this study more sensitive to the participants’ cultural background. Lastly the researchers were sure to observe when further treatment was ecessary and provide referral of services to those participants in need, following Code 1.16 Termination of Services.

**Results and Implications**

This study found that, “multiple substance use was reported by 44% of participants. Of the 127 participants, 68% received screening, brief intervention and referral for specialist treatment for substance abuse, 32% received screening and a brief intervention with no referral” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012, p. 635). Results from the the pre-test and post-test, revealed that there was a significant decrease in substance use with an increase in treatment availability with an exception to cocaine; “reductions were observed in the use of all classes of drugs except cocaine” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). After the initial intervention, 60 participants were referred to further treatment with only 30 actually employing this referral.

Taking into consideration these results, it is clear that the utilization of the SBIRT program is possible and would serve as an effective substance abuse program in hospital settings in South Africa. The proof that this study provides that the SBIRT program can reduce the use of illicit drugs in South Africa can be seen in the South African Medical Journal, “Specifically, the intervention was successful in helping high-risk users significantly reduce their substance use to moderate levels” (Sorsdahl, Stein, Weich, Fourie, & Myers, 2012). Another significant finding is that there were many more black Africans involved in the intervention; 47% compared to only 13% of black Africans who receive treatment at specialist substance abuse treatment facilities. This proves that the accessibility of substance abuse treatment to black Africans is not as attainable as these same services are to other races through private specialist organizations. This in turn increases the importance of hospital-based substance abuse intervention which is clearly more accessible to these populations in need.

Overall this study utilized the necessary research design and sampling methods in order to successfully evaluate the effectiveness of a hospital-based substance abuse intervention. Through problem formulation, sampling, data collection and evaluation the researchers in this study were able to find a negative correlation between availability of substance use treatment and substance abuse. With increased availability and accessibility to treatment options the illicit drug use that is on the rise in the Western Cape of South Africa will inevitably decrease.

# Bibliography

Sorsdahl, K., Stein, D. J., Weich, L., Fourie, D., & Myers, B. (2012). The effectiveness of a hospital-based intervention for patients with substance-use problems in the Western Cape. *South African Medical Journal*, 634-635.