Women with Substance Abuse Problems Exposed to Men’s Violence - A Public Mental Health Challenge

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Abstract

Objective: To explore self-rated physical and psychological health in two groups of women with substance misuse problems, subjected to male violence.

Methods: An examination of the health situation for women with substance dependence being exposed to male violence during life. The study took place in a Swedish context exploring data from 35 women with housing (WwH) and 44 homeless women (HW), regarding posttraumatic stress disorder symptoms, psychological and physical problems. Mann-Whitney U-test and Pearson’s correlation coefficient were used to calculate differences between groups and correlations.

Results: The proportion of women being exposed to male violence during life for the studied group was 91% (72 of 79 women; WwH 29; HW 43). It was found that the WwH had physical health problems but compared to the HW, significantly less frequent. Regarding psychological health problems, both groups were suffering from self-reported problems, most notably in variables measuring stress susceptibility and embitterment, where both WwH and HW had scores markedly above norm mean scores. The HW had overall a poorer mental health profile as compared to the WwH. The WwH still maintained a foundation in the society compared to the HW regarding housing (100/0%), and custody over their children (91/0%).

Conclusion: The study indicated that women with substance dependence and those who are victims of male violence have major problems with both their psychological and physical health. Particularly vulnerable are the HW.

Keywords: Substance misuse problems; Male violence

Introduction

Alcohol and substance abuse are main public mental and physical health issues. About 4.3 % of the women in Sweden over 18 years old have alcohol dependence and 10.5% suffer from alcohol abuse [1]. Additional 25,000 have drug addiction problems of which one fourth are females. Over and above well documented physical and psychological consequences of substance abuse, there is a substantial risk for substance abusers to be eliminated from the labour market, social network and family networks [2,3]. Before being socially isolated from the community most of these women and their families have suffered a lot. If no arrangements such as forms of prevention and/or treatment are made, some will lose not only work, but also home and dignity [4].

Consequences for mental and physical ill-health of substance dependence are described in a number of studies [5-7]. An increased risk of homelessness for individuals with concomitant substance abuse is documented [8,9]. In Sweden there is a large homeless population problem with between 4,500 to 11,500 homeless women, where 2,000 to 3,000 of them have a substance abuse or dependence problem [10,11]. Homeless women’s health, physical as well as mental is poor [12,13]. Regarding mental illness there was found to be nearly triple relative risk of schizophrenia and personality disorder related to the combination of homelessness and substance abuse [13,14]. WwH and substance abuse or dependency problems are also a group at risk for health problems, having high frequencies of comorbidity with anxiety and mood disorders [15-17]. No study has been found discussing or comparing the vulnerability for mental and/or physical health for WwH and HW with such substance abuse problems.

Situations of violence are well-known to be far more common in environments where there are drug- and/or alcohol use. Being exposed to violence is shown to increase the vulnerability for physical and psychological illness. A wide range of symptoms originating from one or more events are presented [18]. One of the most serious psychological consequences of being exposed to stressful events is Posttraumatic Stress Disorder (PTSD) symptoms. PTSD can be characterized by hyper arousal, intrusion, emotional numbing, and avoidance, where the latter includes attempts to avoid reminders of the event(s) by using alcohol and/or drugs [19].

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Since many individuals suffering from substance dependence disorders have been raised in families with parental substance abuse problems and/or psychiatric ill-health, there is an elevated risk that they also have been exposed to violence as children. Being exposed to violence during childhood or adolescence has proved to be related to psychological health problems later in life [20]. Experiencing violence during childhood might exaggerate the development of certain vulnerability aspects of personality [21]. There are also elevated risks for physical diseases in addition to the injury inflicted by the physical abuse. Physical and mental health are closely intertwined and affect each other and, when focussing on public health promotion it is emphasized that these areas need to be studied together [2].

The cultural context in which treatment takes place affects the way environmental factors are met. In the Swedish society there is a tradition to pay attention to evidence-based treatment methods [22]. Most of them, like Motivational Interviewing (MI) [23], relapse prevention, and skills training [24,25] have a strong focus on the substance abuse problems only. The need to include additional aspects has been outlined in studies, for example the importance for women in treatment for their alcohol problems to discuss gender aspects, violence, and their children’s situation [26,27].

To pay attention not only to the substance abuse problem but also to including environmental factors early in the treatment process could limit the consequences for the society, the individual and the risk for mental illness in the next generation [2]. Women are as likely as men to develop substance abuse problems [28], but the consequences can be different for them as compared to men [28]. They often have a greater responsibility for the family and the next generation. Therefore, women may be an important target for interventions. Important from this base of knowledge are prevention and treatment options. There is an urgency to begin to identify, as early as possible, high-risk individuals regarding exclusion from labour market, social networking, and housing [2].

In the light of these findings, through a framework of interaction-oriented theory, we aimed at exploring self-rated physical and psychological health in women with housing (WwH) and homeless women (HW), both groups subjected to male violence. From a public health perspective, in this study we hypothesized that the HW as compared to the WwH would display more severe self-rated health problems.

### Methods

#### Study sample

Between March 2009 and April 2010, 79 women with substance misuse in Stockholm were interviewed; 35 women with housing (WwH) participating in outpatient treatment for substance misuse, and 44 homeless women (HW) with or without treatment for substance misuse in contact with Social Services. When in contact with Social Services, there is a standing offer to participate in treatment for substance abuse problems, though not mandatory for receiving help. Women were asked to participate in the study by the staff at the respective units or by a researcher when visiting each participant unit.

HW in the present study were individuals without a residence, owned or rented, had no permanent address, had to rely on temporary housing options, or were living rough. Women in shelters or temporarily living in institutions were also included.

There were some missing data on items randomly distributed over the measurements for one of the subjects included in the HW group.

### Drop-out analysis

A sample of 143 woman was asked to participate in the study: 74 HW and 69 WwH. Of these, 9 HW agreed to participate but failed to come to the interview, 10 HW got the questionnaire through a social welfare secretary, staff at temporary living institutions, or by telephone (answering machine) but did not give any answer, and 45 women (34 WwH and 11 HW) refused to participate (Figure 1). Of the 30 HW who did not participate in the study, the age was known for 27 of them, with an average age of 43.5 (SD=7, range: 32-58) years. As far as it was possible to clarify, WwH and HW who did not participate in the study were similar to those who participated as no conclusive differences were obtained. We therefore concluded that the WwH and HW may be considered representative of the population of WwH and HW in Stockholm. In comparison, the population of HW with substance misuse in Stockholm 2000-2002 had an average age of 39 (SD=11, range 18-65) years. Half of the HW in total in Stockholm’s City 2001, with or without substance misuse, had psychological problems, and about 60% of the HW with misuse problems used illicit drugs as the dominating preparation [29]. Women in treatment that refused participation in this study had an average age of 46.7 (SD=9, range: 28-70) years. A cohort of 134 women, that between 2001 and 2005 voluntarily sought treatment for their alcohol problems at the unit, were studied, and had an average age of 42 (SD=7, range 22-58) years [15]. Women with substance misuse in Stockholm City 2000-2002 had an average age of 41 (SD=11, range 18-65) years.

Exclusion criteria were: language-related problems, problems of understanding the questions in the survey, and if the women had such serious and acute psychiatric diseases that participation was considered as an increase in her suffering.

### Ethical permission

The participants gave informed written consent to participate in the study, and had the opportunity to withdraw at any point. They also were informed that their participation was voluntary and their treatment/management at the unit would not be affected whether they participated or not. The study was approved by the Stockholm Regional Ethics Committee (Dnr 2009/2144-31/5).

### Measurement

IES-R, Impact of Event Scale-Revised [19], a scale containing 22 items about degree of distress during the past week related to a specific upsetting event in the past, (0=not at all to 4=very much) full scale score 88 and three subscales which reflect intrusion (eight items about thinking and feeling about the incidence that disturbs the daily

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**Figure 1:** Inclusion process in the study for WwH and HW.
life), avoidance (eight items about intentional avoiding situations or thoughts reminding about the incidence), and hyperarousal (six items about problems with physical or psychological calmness related to the incidence). The IES-R score does not provide a PTSD diagnosis although mean subscale score higher than 1.5 on each subscale or a full scale score of 33 indicate Post Traumatic Syndrome (PTSD) symptoms [30,31].

Swedish Universities Scales of Personality (SPSS) [32], a revised and reduced version of the KSP measuring personality traits with 91 multiple-choice questions, giving different aspects of the personality in 13 different scales (Cronbach’s alpha coefficients ranged from 0.59 to 0.84) [32]; somatic trait anxiety, psychic trait anxiety, stress susceptibility, lack of assertiveness, impulsiveness, adventure seeking, detachment, social desirability (reversed scale), embitterment, trait irritability, mistrust, verbal trait aggression, physical trait aggression. An example of a statement in the questionnaire is: “I easily start to argue with others if they express another opinion.” Each statement in the questionnaire has four response alternatives: It is exactly right; it is fairly right; it is fairly wrong; it is not right at all. Through factor analysis a three-factor solution corresponding to personality theories is used: neuroticism, aggressiveness and extraversion.

A shortened version of the World Health Organization questionnaire [33] of male violence against women - experience of men’s physical and psychological violence, sexual abuse, number and incidence of assault, and domestic violence between the adults during childhood was completed by the subjects. Questionnaires concerning relation to male perpetrator(s) (partner, father, acquaintance, etc.), if the violence was reported to the police, if the report passed to perpetrator(s), any help they got and from whom, and experienced satisfaction with this help/support, were formulated for this study by the authors.

ASI, Addiction Severity Index [34,35], was used for information about substance misuse problems, physical and psychological health, family situation, marital status, children, experience of the justice system.

Data analyses

Descriptive statistics were calculated and inter-correlations between variables performed using Pearson’s correlations. Imputation of missing items in SSP and IES-R were imputed with the mean of completed items if ≥ 5 out of 7 items of the scale respectively were answered. To explore differences between groups in SSP, IES-R and ASI scales, Mann-Whitney U-tests were applied. Statistical analyses for data were performed in Statistical Package for the Social Sciences SPSS (version 18.0).

Results

Demographic information

Included in the study were 79 women, 35 WwH and 44 HW. The mean age of the 79 women was 47.6; WwH 48.3; HW 47.0 years (SD=10.0; 10.2; 9.9, range, 21-68). Most were of Swedish nationality (94%), and the remaining came from other European countries, mainly from the Nordic countries. Of the 44 HW more than half of them had been homeless for 10 years or longer, 28% for five to nine years, and 14% for four or less. The 35 WwH have been living at the same place in mean 3.6 years. About half of them completed a college education. Most experienced emotional/psychological violence, 90% (WwH 83%; HW 95%) physical, and 61% (WwH 59%; HW 63%) sexual violence. Nearly two fifths (WwH 18%; HW 82%) of the women had been assaulted during the past year and about one-fifth (WwH 10%; HW 33%) from their current partner, most exposed by numbers and times were the HW. About a third of the women (WwH 34%; HW 28%) had been abused by the father or another male relative, for further information about the number of women in the respective group subjected to violence during childhood (Table 2).

IES-R

Results from the IES-R are presented in full scale score (max 88), and in three subscales (Intrusion, Avoidance, and Hyperarousal). The results show that 33 of the 72 exposed women experienced severe consequences from the reported event (more than 33 points). Subscale means for all women indicate that the HW scored in mean above 1.5 in all subscales, i.e. experienced problems regarding at least one of the events that suggest a PTSD diagnosis, as shown in Table 3. Results from Mann-Whitney test for independent samples show significant differences between the exposed WwH and the exposed HW regarding the IES-R full score and all subscales, indicating posttraumatic stress disorder.
symptoms of hyperarousal, avoidance, and intrusion as more common among the HW compared to the WwH.

SSP

Results from the SSP presented in table 4 and figure 3, show that the overall scale score means for all women were outside the range of 1 SD around norm mean (T=45-55) regarding subscales measuring somatic anxiety, stress susceptibility, embitterment, irritability, mistrust and verbal aggression. All HW but one reported being exposed to violence from one or more men, therefore the results from SSP are presented for the whole group that completed the questionnaire, N=72. Significant differences were found between all WwH and all HW in variables measuring somatic anxiety, detachment, embitterment, mistrust, verbal and physical aggression, though both groups reported scores above norm mean for subscales of stress susceptibility and embitterment.

IES-R measures

Correlations between IES-R measures and SSP are presented in table 5. IES-R scales correlated significantly for the HW group with all clusters of SSP-scales except for the Introversion – Extraversion scales. For the WwH there were only two significant correlations obtained (Table 5).

Other aspects of psychological health

Results of the Addiction Severity Index used to question the women about mental problems during lifetime, are presented in Table 6. Notable is the difference between the two groups of women regarding psychiatric treatment where 74% of the WwH and 46% of the HW (p=0.01) ever received treatment for their problems; and, ever had hallucinations (WwH 20% and HW 48%; p=0.02). Despite that, it was more common that the HW had disability pension due to psychiatric disorders compared to the WwH (p=0.033). Far more common for the HW were symptoms of PTSD (65%) compared to the WwH (17%) (RR 6.5, 95% CI 1.9-21, p=0.001) see also Figure 2.

Discussion

Most women included in this study, both the WwH (29 of 35) and the HW (43 of 44), reported that they were subjected to male violence at some time during their lives. It is a very troubling result, even if it is not applicable to the whole population of women with substance dependence disorder. The results therefore should be interpreted with great caution. The women also had substantial problems with both psychological and physical health. The HW had, not surprisingly, more serious problems, despite the fact that they had been offered and/or participated in substance abuse treatment. The WwH who were in treatment when the study was conducted, however, had better physical health, remained, in many cases, in the labour market, and in most cases also had custody of minor children, when compared with the HW. In recent studies it has been shown that homeless women were almost 21 times more likely to have been hospitalized for mental disorders, compared with women in the general population; and about six times more likely to have been hospitalized for injuries or infectious diseases [12-14].

Both groups also had experienced violence in childhood, and parental alcohol abuse and/or mental health problems. There is evidence that both individual risk, especially alcohol and/or drug use, and environmental factors in terms of family psychosocial characteristics, are influencing criminal behaviour and mortality in youth [36]. With this knowledge it is important to break the generational transmission of violence, drug abuse, and mental illness for women in treatment today [37].

In this study a number of personality traits significantly differed from norm population scores. Common comorbidity with substance dependence is antisocial personality disorder [38], conduct disorder

![Figure 2: Percentages of self-reported psychological problems, for two groups of women exposed to male violence (WwH: n=29; HW: n=43).](image-url)

![Figure 3: Mean T-scores in self-rated personality (SSP) scales for two groups of women exposed to male violence (WwH: n=29; HW: n=43), where norm mean T=50, SD=10.](image-url)
of women displaying a cut-off IES-R full scale point of ≥ 33 (WwH: n=5; HW: n=28) for two groups of women exposed to male violence (WwH: n=29; HW: n=43). Results of Mann-Whitney’s test and significance level

### Table 4: Mean T-scores and (SD) in self-rated personality scales (SSP) for two groups of women exposed to male violence (WwH: n=29; WH: n=43) in self-rated personality traits (SSP). Results of Mann-Whitney’s test and significance level

<table>
<thead>
<tr>
<th></th>
<th>WwH n=29</th>
<th>HW n=43</th>
<th>p</th>
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<tr>
<td><strong>Introversion – Extraversion scales</strong></td>
<td></td>
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<tr>
<td>Impulsiveness</td>
<td>53.0 (11.6)</td>
<td>58.4 (13.8)</td>
<td>ns</td>
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<td>Adventure seeking</td>
<td>51.4 (10.5)</td>
<td>53.0 (12.4)</td>
<td>ns</td>
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<td>Detachment</td>
<td>49.2 (6.5)</td>
<td>56.9 (10.0)</td>
<td>&lt;.001</td>
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<td><strong>Conformity – Nonconformity scales</strong></td>
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<tr>
<td>Embitterment</td>
<td>57.3 (8.9)</td>
<td>67.3 (13.0)</td>
<td>&lt;.001</td>
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<tr>
<td>Social desirability</td>
<td>46.9 (10.0)</td>
<td>46.3 (11.3)</td>
<td>ns</td>
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<tr>
<td><strong>Anxiety scales</strong></td>
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<tr>
<td>Somatic anxiety</td>
<td>54.4 (8.1)</td>
<td>59.7 (11.8)</td>
<td>.047</td>
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<td>Psychotic anxiety</td>
<td>50.8 (8.8)</td>
<td>54.9 (10.8)</td>
<td>ns</td>
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<tr>
<td>Stress susceptibility</td>
<td>59.2 (12.2)</td>
<td>59.7 (12.4)</td>
<td>ns</td>
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<tr>
<td>Lack of assertiveness</td>
<td>50.4 (8.4)</td>
<td>51.2 (11.4)</td>
<td>ns</td>
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<tr>
<td><strong>Aggression scales</strong></td>
<td></td>
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<tr>
<td>Irritability</td>
<td>54.5 (12.3)</td>
<td>58.3 (12.9)</td>
<td>ns</td>
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<tr>
<td>Mistrust</td>
<td>49.9 (10.0)</td>
<td>65.2 (12.6)</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>Verbal aggression</td>
<td>52.3 (7.1)</td>
<td>59.4 (11.1)</td>
<td>&lt;.003</td>
</tr>
<tr>
<td>Physical aggression</td>
<td>46.3 (6.1)</td>
<td>57.1 (13.3)</td>
<td>&lt;.0001</td>
</tr>
</tbody>
</table>

#### Table 5: Significant correlations between personality scale (SSP) scores and IES-R full scale and subscales Intrusion, Avoidance, Hyperarousal for two groups of women displaying a cut-off IES-R full scale point of ≥ 33 (WwH: n=5; HW: n=28) and borderline [39]. Both WwH and HW reported problems regarding stress susceptibility and feeling not being able to influence their situation (embitterment), signalling the need for enhanced coping methods in everyday life. Specific personality traits are indicators of increased risk of relapse in addiction [40]. Being victimized during early life could influence the development of personality traits [37]. A large proportion of the women in this study had experienced during their childhood violence from the father or another male relative or had witnessed violence between adults. One can therefore hypothesize that this has affected their personal development and that the large deviations from the normal population have emerged as a result of a major dysfunction in their ability to manage stress and regulate anxiety [37,41]. Therefore it should be of importance to help to improve coping strategies for reducing stress-induced mental ill-health [2].

When limited resources are available for mental health treatment it is plausible from one vantage point that the substantial needs of the HW be prioritized, thereby restricting the treatment efforts to the WwH. However, such a vantage point runs the risk of limiting the much needed treatment efforts of the WwH, for whom, one can assume, there are important opportunities to influence the effects of past trauma experiences and current and future substance abuse [2]. From a public mental health promotion perspective the prevention and early intervention efforts would be important not only for the women themselves but also for their children and the society in general.

The information that 91% of the women, who voluntarily participated in this study, had experienced male violence and not received any help for the consequences of this is alarming. Alcohol and substance abuse treatment must take into account that individuals, in addition to their addiction problem often have other related problems such as early life experiences that interact with their addiction problem. In Sweden the addiction treatment today rests on the ground of evidence improved methods. However, Sweden is still, to a certain extent, lacking a holistic approach and appropriate interventions to reduce further consequences of substance abuse, such as renewed traumas in terms of violence, exclusion from the labor market, loss of familial and social networks, and lost custody over their children. Treatment programs proved to be effective is family therapy and community reinforcement approach [43]. For those children who are now growing up in families, full or part time, where parents suffer from substance abuse, support structures are needed for the prevention of future mental and physical illness patterns [44].

There are some limitations of this study to be considered, the main one being the small sample. The results must be interpreted cautiously, as we may have accidentally examined a particular subgroup. However, the results can be seen as an important illustration of women subjected to male violence and the severity of the consequences for these women and their children, if remained untreated. We used standardized questionnaires with norm scores from a normal health population of women. Therefore we can conclude that, despite the limited number of women, the group of WwH and of HW were found to be very sensitive to stress and to internalizing a sense of not being able to influence their situation.

In substance abuse treatment setting in the Swedish cultural context the most focused efforts are on addressing alcohol dependence itself. However, earlier studies in women with dependence problems

Table 5: Significant correlations between personality scale (SSP) scores and IES-R full scale and subscales Intrusion, Avoidance, Hyperarousal for two groups of women displaying a cut-off IES-R full scale point of ≥ 33 (WwH: n=5; HW: n=28)
have shown that other factors in life seem to be of great importance for the women to process during the treatment period [26,27]. To prevent or mitigate psychiatric problems are important factors for the women still having custody over their children [37].

Conclusions

The study indicated that women with substance dependence and with experience of male violence have major problems with both their psychological and physical health. Particularly vulnerable are the HW. Past experiences of violence that have not been processed can further aggravate current health, which is why we suggest that questions about experienced violence should be included in the treatment process in order to provide appropriate treatment interventions. For the WwH, this may mean preventing serious consequences for both their housing situation and for their health. Further research is needed to elucidate prevention and treatment possibilities for women with substance abuse problems exposed to men’s violence.

Acknowledgments

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