



Services to Address Tobacco Use Should be Integral Part of Rehabilitation of Persons with Severe Mental Illnesses

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Persons with severe mental illness (SMI) die prematurely. Their life expectancy is reduced by approximately 10–20 years compared to that of the general population [1]. The gap in life expectancy has been observed to have widened over time [2]. The higher mortality rates in persons with SMI has been largely attributed to preventable conditions such as cardiovascular diseases, respiratory disorders, and cancer. Tobacco use is a leading modifiable health risk behaviour for these conditions. When compared to the general population, the prevalence of tobacco use—smoking, smokeless tobacco, and dual use—is higher in SMI; individuals with SMI start using tobacco earlier; they indulge in heavier use of tobacco and inhale more deeply while smoking, thereby extracting greater quantities of nicotine [3]. Whilst the prevalence of tobacco use in the general population has shown a downward trend, this has not been observed in persons with SMI [4].

Beyond Mortality: Importance of Tobacco Use in Rehabilitation and Quality of Life

Besides its effect on longevity, tobacco use has been associated with poor health and social outcomes in persons with SMI. Tobacco use leads to poor health related quality of life [5], and expectedly, in the presence of multimorbidity this has been noted to be worse [6]. Other than the effect on physical health, smoking has been associated with more severe positive symptoms, aggression, suicidal attempts, and sleep disturbances in individuals with schizophrenia [7]. Smoking behaviour in people with SMI has been associated with polysubstance use, use of contraband tobacco products and use of discarded cigarette butts [8]. Tobacco addiction in severe mental illness impacts several domains of recovery and rehabilitation such as mental and physical health, finances, family, and livelihood leading to poor quality of life in the affected individuals.

Smoking necessitates increased doses of medications such as olanzapine and clozapine (drugs that are metabolized by the CYP1A2 that is induced by the polyaromatic hydrocarbons in smoked tobacco), thereby adding to costs and the burden of side-effects [9]. Tobacco use in persons with SMI can potentially negatively affect relationship with family members. In regions where large proportion of individuals with SMI live with their parents and other family members, tobacco use has been frequently observed to be a

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source of negative expressed emotions and consequent adverse impact on the course of the illness, including relapse. Tobacco use can adversely impact employment opportunities. Stigma and negative attitude associated with SMI can get compounded by tobacco use. Anecdotally, we have observed patients refusing to work or losing their jobs because their jobs demanded cessation of smoking (e.g., in petrol pumps); individuals with SMI engaged in low-key business have been observed to sell off their goods cheaply to obtain quick money for smoking, thus incurring loss in their business.

Interventions for tobacco use in SMI

A wide range of non-pharmacological interventions ranging from contingency reinforcements to home visits and family support and delivered in both individual and group formats have been evaluated in persons with SMI [10]. Nicotine replacement therapy, bupropion and varenicline have been found to be effective for smoking cessation in persons with SMI [11]. Combinations of pharmacological and non-pharmacological interventions have been reported to be better than non-pharmacological interventions alone, for facilitating abstinence and reduction in cigarettes smoked [10]. A comprehensive cardiovascular risk reduction intervention in persons with severe mental illness that included tobacco cessation as a component was found to be effective in reducing cardiovascular risk at 18 months follow up [12]. However, long-term impact of tobacco cessation alone on health outcomes as well as functional outcomes remains to be evaluated. Given that tobacco use affects several domains of persons with SMI, one would expect the impact of successful tobacco use cessation / reduction intervention to have far-reaching benefits in these aspects as well.

Challenges in Provision of Interventions

Several barriers exist for interventions for tobacco cessation in individuals without SMI. Many additional barriers exist for such interventions in individuals with SMI. Cognitive deficits are ubiquitous in persons with SMI, and these can often be distressing. Persons with SMI may perceive enhanced cognitive function with

tobacco use [13] and hence may be reluctant to reduce or stop tobacco use. Low perceived self-efficacy in quitting tobacco, feeling of being in control and the hedonic effects of tobacco use are other barriers [13]. Other concerns include weight gain, fears of decreased social acceptance and negative affective states on quitting [13]. Therefore, tobacco use may be continued as a coping mechanism and self-medication in people with SMI. Health care providers may not prioritize tobacco use as a problem in the presence of mental health symptoms that may overshadow the tobacco use [13]. The health care providers may also feel less confident about the chances of quitting in this population although the evidence is promising. Tobacco use has been traditionally condoned in psychiatric facilities and has been even used for token economy and as contingency management in rehabilitation facilities. Family members, health care staff and the persons with SMI may consider tobacco use as a choice rather than as addiction. Typically, tobacco cessation services are provided by addiction specialists and the interventions are perceived to be time consuming, thereby deterring psychiatrists treating SMI patients from intervening. The lack of a strong evidence for the interventions, with only recently emerging evidence for long term abstinence [14] may be another contributing factor. Finally, some mental health professionals may not be comfortable with harm reduction as an approach and, in the context of limited success for complete abstinence, may not be willing to offer interventions for reduction of tobacco use.

Interventions for Tobacco Use as Integral Part of Treatment and Rehabilitation of Persons with SMI

The burden of multimorbidity in SMI has been increasingly recognized, with enhanced focus on physical health management in people with SMI [15]. Health promotion, preventive aspects, and treatment of physical health conditions for persons with SMI have been stressed upon because of the synergistic effects of physical health conditions in SMI on disability, quality of life and costs of treatment. For example, the World Health Organization (WHO) has issued treatment recommendations for tobacco cessation and management of substance use disorders in

people with SMI [16]. Similarly, it has issued guidelines to manage physical health conditions in adults with SMI [17]. Therefore, recovery and rehabilitation in SMI encompasses physical health of the individuals affected. A meta-analysis has reported that smoking cessation is associated with improvement in depression, anxiety, and quality of life in those with psychiatric disorders like in those without [18].

In this context, we believe that tobacco cessation services should be integral to the recovery programs for persons with SMI. These are best addressed at the focal point of care for SMI, that is in mental health services rather than as parallel services. A point of care model cuts down on an extra step and appointment besides encouraging direct clinician involvement. Mental health professionals are best placed to assist SMI patients as they are trained in long-term care and are equipped with techniques such as motivational interviewing. Consumers Helping Others Improve Their Condition By Ending Smoking (CHOICES) and Learning about healthy living (LAHL) are programs that have been implemented in psychiatric rehabilitation services [19]. The LAHL has been reported to be feasible as a part of psychosocial rehabilitation in clubhouses [20]. The curriculum was delivered as group sessions with a wellness approach and included other aspects of healthy living such as nutrition, physical activity, and stress management. In a high-income setting, tailor made smoking cessation intervention for persons with SMI that included behavioural and pharmacological support (Varenicline, Bupropion and NRT) have been reported to be effective at improving quitting at 6 months following the intervention and in reducing costs [21]. These interventions are yet to be tested in low- and middle-income countries (LAMICs). The burden is likely to be higher and the health systems are disparate and less resourceful in these settings [22]. For this reason, there is need for developing briefer interventions that can be used in high volume settings.

Along with the challenges of resources, several low-resource countries present with unique opportunities also. Family members are an important source of support in the treatment in many cultural settings in several part of the world. There is scope for them to be involved as co-therapists or even as primary therapists. Peers are another group of untapped resource. Application- and phone-based interventions provide opportunities in the presence of greater digital and telephone

penetration in many LAMIC settings. It is time that the relatively neglected part of services addressing the challenges of tobacco use for persons with SMI is taken up with earnestness by all stakeholders. Years of life lost, disability-adjusted life years lost and compromised quality of life due to tobacco use are far too important to be ignored.

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