

m-Health Approaches in Suicide Prevention at the Emergency Department: Some Theoretical and Practical Considerations

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ABSTRACT: *Emergency Departments (EDs) are the*

urgent, primary or sole point of contact with the health care system; moreover, they are directly confronted with the high rate of suicidal behavior (SB) recidivism amongst suicidal individuals discharged from EDs. However, suicide prevention at EDs appears as underused and needs to be reinforced in its implementation. A particular care has to be addressed to prepare the post-discharge period, in order to limit risk of social isolation and provide support. In this direction, m-Health approaches may offer an integrative contribution to the prevention strategies well-established in literature: a) They may be considered part of the “caring contacts” strategies post-EDs, and b) By a personalized programming, their applications may provide a support for “safety planning” interventions, designed to identify and manage vulnerabilities and resources of the individual during the suicidal crisis. They rely on a number of coherent theoretical references and could possibly make it feasible as an original perspective to study SB. Nevertheless, m-Health has to be perceived and utilized merely as a tool, which in any case can not substitute clinical evaluation and human presence at the moment of the confrontation with suicidal individual’s distress..

KEYWORDS: *Suicide, Suicide behavior, Prevention, Emergency departments, m-Health*

INTRODUCTION

The role of the Emergency Departments (EDs) in identification, admission and clinical management of suicidal patients (presenting suicidal ideation, SI, and/or having committed a suicidal attempt, SA) is crucial, as EDs often serve as an urgent, primary or sole point of contact with the health care system (Larkin & Beautrais, 2010; Ting et al., 2012; US Department of Health and Human Services Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012; Betz et al., 2016). EDs represent also a critical link in the suicide prevention chain (Larkin & Beautrais, 2010; US Department of Health and Human Services Office of the Surgeon General and National Action Alliance for Suicide Prevention, 2012; Betz et al., 2016; Miller et al., 2017). They are indeed directly confronted with the suicidal behavior (SB) recidivism phenomenon amongst suicidal individuals discharged

from EDs, who present a high near-term risk of further SI, SA, and suicide completion (Larkin & Beautrais, 2010; Arias et al., 2015).

Up to 25% of those who made a medically serious suicide attempt (MSSA) and have been seen in the EDs, make another

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harms; indeed, self-harms without lethal intent occur frequently in the same patients and they can be a precursor of SB (Pompili et al., 2015). Two systematic reviews published in 2002 (Owens et al., 2002) and in 2014 (Carrol et al., 2014) converged to similar data, showing that one year following the self-harm an overall average of 16% repeated the self-harm behavior and approximately 2% died by suicide. Further, during the year before their deaths, 39% of suicide victims visited the EDs at least once and 39% of them were admitted for self-harm (Gairin et al., 2003). Additional evidence suggests that over a 15 years follow-up, in a large (N=11,583) sample of patients who were presented to the hospital after self-harm, the overall suicide risk in the first year was 66 times higher than the annual risk of suicide in the general population, and this risk progressively increased over the years (Hawton et al., 2003).

In spite of the data, suicide prevention at EDs appears as underused and needs to be strengthened in its implementation (Larkin & Beautrais, 2010; Knesper, 2010; Betz et al., 2016; Miller et al., 2017; Bridge et al., 2017). A particular care, in analogy with psychiatric hospitals aftercare strategies for suicidal patients, has to be addressed to the post-discharge period, in order to provide support and limit risk of social isolation (Pompili & Baldessarini, 2015).

“Caring Contact” and Multifaceted Inte Bmf

of emergency. The multidisciplinary staff who characterizes the emergency services facilitates the practical feasibility. Good acceptability from the patients have also been described (O'Brien et al., 2016).

Other preliminary experiences more focused on research (Selby et al., 2013) suggested the possibility of determining a detailed assessment of the temporal dynamics risk of the patient through algorithms realized based on a self-evaluation logbook (by taking into account the type and the intensity of the SI, the contributory/triggering factors as well as the protective factors and the emotional status). The applications based on the elaboration and interpretation of these data, once perfected, may contribute to an individualized screening and assessment of the suicidal risk, in the context of the recommended multifaceted prevention interventions (Boudreaux et al., 2013; Miller et al., 2017).

m-Health use in mental healthcare is an expanding area conceived for monitoring symptoms and improving outcomes in several psychiatric disorders, involving mood disorders, anxiety disorders, schizophrenia, eating disorders, and personality disorders (Lal & Adair, 2014; Anthes 2016). These approaches are particularly diffused in the substance use disorders domain across various substances, populations and settings; scientific validations are nevertheless available in a minority of cases (McClure et al., 2013, Kiluk & Carroll, 2013, Marsch et al., 2014; Anthes 2016). A rigorop 0i67 Td(.,)0.4EieH tpeänjç,ç0@PñVãDàV@P,çDP0 çççViq2ÅSç. VHVHICVçHIZiçWL@WçE OhWçç 0

lifespan and thus as a possibly useful target in prevention strategy interventions, has been largely described over the last years: widely among teenagers (King & Merchant 2008; Kaminski et al., 2010; Czyz et al., 2012; Carroll et al., 2014; Whitlock et al., 2014; Arias et al., 2015; Ghassemi et al., 2015; Opperman et al., 2015, Arango et al., 2016), but also amongst adults and elderly people (Purcell et al., 2012; Lourey et al., 2013; Van Orden et al., 2013; Conwell, 2014), sexual minorities (Duong & Bradshaw, 2014) and ethnical minorities (Hill, 2009).

In an “Ideation-to-Action” Framework

m-Health approaches in SB prevention are in line with some recommendations stated in the 2014 Lancet Psychiatry issue focused on SB (Hawton 2014; O'Connor & Nock, 2014), dedicated to the necessity of looking at the underlying core factors of suicidal potential in a different way and to develop new prevention strategies. Evidence-based interventions in suicide prevention, under their different population, institutional and individual aspects (Mann et al., 2005; WHO, 2012), are, indeed, primarily based on the state-of-the-art knowledge about risk factors (Schwartz-Lifshitz et al., 2012; Aleman & Denis, 2014; Hogan, 2016). SB emerges as the by-product of a multifactorial process that integrates at various level of complexity, several neurobiological, psychological, socio-economic and cultural factors, which have

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