- **Background**:

A definition of severe mental illness is based on three factors: diagnosis duration and disability (NIMH, 1987). People with severe mental illness have diagnoses including schizophrenia, bipolar disorder or personality disorder, which are long-term in duration and have a negative impact on their ability to function in their day-to-day lives. A European study estimated the total population-based annual prevalence of serious mental illness to be 2 per 1000 (Ruggeri, 2000).

Oral health is an important part of overall physical health and poor oral hygiene has been linked to coronary heart disease (Montebugnoli, 2004), diabetes and respiratory disease (Cormac, 1999). In addition it has a negative impact on aspects of everyday living including eating, comfort, appearance, confidence and self esteem (Cormac, 1999). Despite this oral health has not been considered a priority for those with severe mental illness and as a result this group have a significantly increased risk of experiencing oral health problems than the general population (BSDH, 2000).

The reasons proposed for this disparity include signs and symptoms of the disease process, for example a lack of motivation, making a person less likely to perform oral hygiene; side effects of medications, for example xerostomia or dry mouth which causes caries and periodontal disease; and issues with access to dental treatment, for example financial constraints (Friedlander, 2002).

Oral health education has been identified as one of the most important tools of oral health promotion. Using this approach people with severe mental illness would be provided with specific advice and training on oral health care to enable and empower them to take care of their own oral health. The aim of this approach is to prevent oral diseases and improve the quality and duration of life for those living with severe mental illness.

- **Objective/s:**

The primary objective of the review was to review the effects of oral health education (advice and training), with or without monitoring, for people with serious mental health issues (Khokhar et al, 2016).

- **Intervention/Methods:**

The review included randomised controlled trials (RCTs) and economic evaluations conducted alongside RCTs.

The interventions considered were:

- Oral health advice, which was defined as preventative information that enables the recipient to make the final decision about their oral health;
- Training, which was defined as the process of learning particular skills to maintain one's own oral health.

The interventions were considered whether or not they included monitoring, with monitoring defined as any means of "observation, supervision, keeping under review, measuring or testing at intervals" (Tosh, 2014). The interventions were considered against a control of standard care.

The outcomes divided into four time periods:

1. Immediate (within one week);
2. Short term (one week to six months);
3. Medium term (six to 12 months);

4. Long term (over 12 months).

The primary outcome measures considered in this review were oral health, quality of life and dental state.

Secondary outcome measures included:

- Global state
- Mental state
- Adverse events
- Death
- Service use
- Leaving the study early
- General functioning
- Social functioning
- Economic.

Results:

There were three studies included in the review. This included a total of 1358 participants, however the majority of these, n = 1248, were drawn from one study. Two of the studies were parallel, one was a cluster and all were described as randomised and included people with schizophrenia.

The authors reported that one trial (n = 50) reported a clear difference in dental state (plaque index) between the provision of oral health education compared to standard care, however these data were noted to be of very low quality. This finding was found to be statistically significant however the authors stated that it was unclear whether it was clinically significant. There was moderate quality data from this trial suggesting that there was no clear difference between the two groups in terms of leaving the study early.

Another trial (n = 60) reported a clear difference in dental state (plaque index) between motivational interview and oral health education compared to oral health education. However data were categorised as very low quality, and the authors reported that this result may not have implications regarding improvement in oral hygiene. There was moderate quality data from this trial suggesting that there was no clear difference between the two groups in terms of people leaving the study early.

In the case of monitoring compared to no monitoring, one study (n = 1682) found moderate quality data suggesting that more people in the monitoring group left the study early, however the authors reported that these data were problematic, meaning this result must be viewed with caution.

Other outcome measures including oral health behaviours, quality of life, adverse events and service use were not reported in any studies, or where they were, they could not be considered due to a high attrition rate.

Conclusions

The provision of oral health education resulted in statistically better plaque index scores than those who received no oral health education, however the clinical significance of this is unclear. The authors report that, overall, data in the included studies were too sparse to extensively address the objectives of the review and the quality of data was very low to moderate, meaning that these results must be treated

with caution. In addition the two smaller studies included in this review were reported to be at high risk of bias as they were funded by a large multinational company whose products include those related to oral heath. .

- ## Implications for Practice:

1. For people with serious mental illness - Whilst it appears to make sense to follow the guidelines and recommendations put forward by the British Society for Disability and Oral Health working group concerning oral health care for people with mental health problems (Griffiths et al, 2000), the lack of high-quality evidence may be a hindrance in the widespread acceptability of this guidance, both amongst patients and professionals.

2. For clinicians - Clinicians should be aware that current guidance for oral health advice for people with serious mental illness is not supported by evidence from randomised controlled trials and was produced by a working group at British Society for Disability and Oral Health (Griffiths et al, 2000). The guidelines do not specify a list of the professions or affiliations of the working group that developed them. Clinicians should be proactive in liaising with oral health professionals in developing novel ways to cater for the needs of people with serious mental illness, who have well-documented difficulties in accessing mainstream healthcare services.

3. For policymakers or managers - Policymakers and managers have a mammoth task in identifying and implementing evidence-based policies in order to achieve quantifiable outcomes. They should perhaps recognise the potential financial benefits for their organisations and improved quality of life for patients as an incentive to recommend active research interest in this area. There is insufficient high-quality evidence from this review to support a policy change.

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