

A retrospective evaluation of smoking status and smoking cessation among inpatients on a Mother and Baby Unit in Hampshire

Dr Gemma Smith

FY2, MBU Melbury Lodge
Hampshire, UK

Southern Health 
NHS Foundation Trust

Aims and hypothesis

The aim of this quality improvement project was to investigate how effectively we, as a service, promote smoking cessation on a Mother and Baby Unit (MBU) in Hampshire. The hypothesis was that not all patients are offered smoking cessation advice due to fluctuating mental state, short admissions, and lack of patient engagement. An additional aim was to investigate whether there were any significant differences in smoking rates between different diagnoses.

Background

All patients investigated were admitted to the Mother and Baby Unit which admits women who have severe mental illness from 24 weeks of pregnancy until their child is one year old. Smoking during pregnancy is known to increase risk of foetal brain developmental problems (1). During childhood, second-hand smoke can increase the risk of respiratory problems as well as the risk of sudden and unexpected death in infancy – maternal smoking increases the risk of asthma during the first 7 years of life (2).

Methods

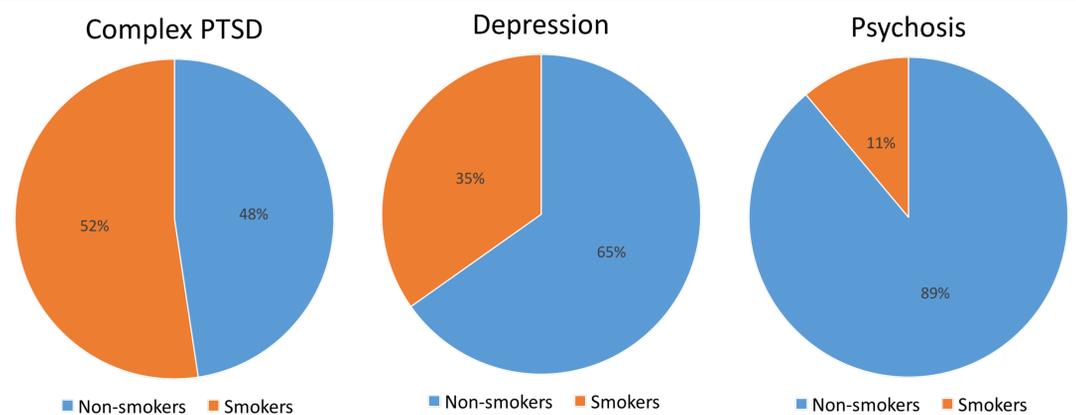
A retrospective study evaluating admissions spanning a 3.5 year period (between March 2017 and September 2020) to gain a sample size of 130 admissions. Digital records (via "Rio") were accessed for these patients, and searched for evidence of patients' smoking status. If there was no clear documentation of smoking status on admission, notes were read for any evidence of patients behaviours suggesting that they were smokers e.g. leaving the ward for a cigarette. When no evidence could be found indicating the smoking status of the patient they were counted as "unknown". Discharge summaries were used to evaluate diagnoses at time of discharge. Digital patient notes were searched for documented conversations about smoking cessation advice for patients who were smokers at the time of admission. Anonymised data was collated and comparisons made between different subgroups of smokers.

Results

35% of admissions to the MBU between March 2017 and September 2020 reported that they were current smokers. 12 patients admitted over this period (out of 130) had no recorded smoking status.

Out of patients who reported that they were current smokers, smoking cessation conversations were recorded for 73%. Out of those patients who were recorded as given smoking cessation advice, 27% engaged with this – e.g. patients switching to nicotine replacement therapy or self-referring to quitting services in the local area.

A greater proportion of patients with a primary diagnosis of complex PTSD were smokers than patients diagnosed with depression or psychosis. 21 patients had a diagnoses of complex PTSD – of these patients, 52% were recorded as smokers. 18 patients had a diagnosis of psychosis – of these, only 11% were recorded as smokers. 46 patients had a diagnosis of depression – 35% of these were recorded as smokers.



Discussion

It was interesting to see the differences in smoking rates between different diagnoses. The reasons for why different groups based on diagnosis having different proportions of smokers could be numerous, including higher rates of impulsivity and socioeconomic and education factors. It is also worth considering the impact that peer influence between patients on the ward has on smoking cessation. It was interesting to learn, through informal discussions with patients on the ward, that some patients perceive smoking as an easy way of accessing time away from the ward, especially due to the increased restrictions in response to Covid-19. This could be a factor in discouraging patients from engaging with smoking cessation.

Given the small ward size, the population evaluated is fairly small, which impacts on the significance of the results.

Although not all smokers had written documentation of smoking cessation advice being given, it's possible that there were patients who were given advice that wasn't formally documented. A physical health questionnaire is now used routinely on admission which includes smoking status. It's important to consider that the mental state of patients on admission might result in them being unable to understand, or retain, any smoking cessation advice given to them. As such, giving smoking cessation advice to 100% of admissions might not directly increase the proportion of patients who engage with it.

It's also important to consider the additional responsibilities as an MBU to make patients aware of risk to baby – both during pregnancy and post-natal. We should ensure that routine smoking cessation advice also includes educating mothers about the additional risk to their baby, as well as to themselves.

Conclusions and Next Steps

73% of patients who reported themselves as current smokers were given smoking cessation advice during admission – of these, only 27% engaged with this advice.

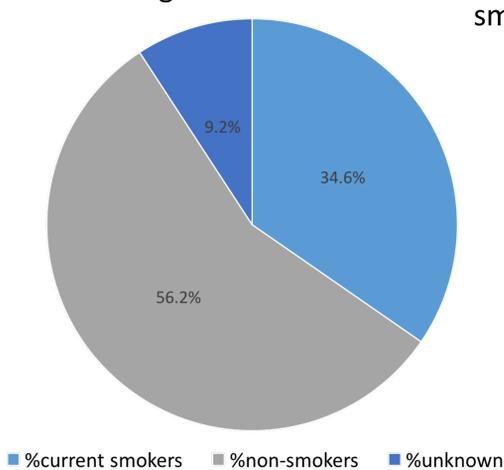
Given average admissions last for over a month, we should be aiming to give smoking cessation advice to all our patients who smoke, and ensure that this is documented. We should also consider the timing of these conversations – they should be held as soon as practicably possible based on the patient's clinical and mental state.

There were 12 patients out of the cohort who had no documented smoking status. Collecting this information should be done routinely when a patient is clerked on admission. When it is not possible to have these conversations at this time, due to the health of the patient, this should be noted and revisited at the earliest possibility.

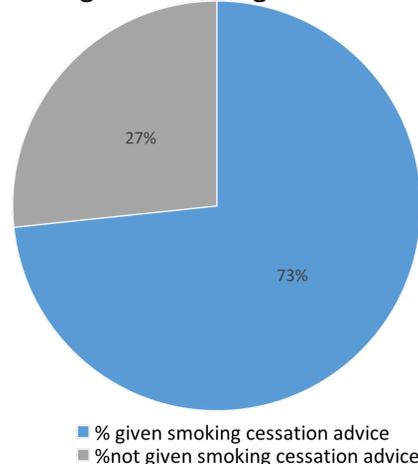
There was a notable difference in proportion of smokers when categorised by diagnosis at discharge, with a significantly higher proportion of patients with complex PTSD being smokers compared to those diagnosed with depression or psychosis. This indicates some possible areas for further research in the future – Why do patients with complex PTSD have a higher likelihood of being smokers? And does the diagnosis affect the patients engagement with smoking cessation?

Following the introduction of the physical health questionnaire on admission, and by disseminating these results along with education on the ward, we aim to increase the percentage of patients receiving advice, and achieve higher levels of engagement. We will re-audit in a few months to see if there is a positive impact.

Smoking status on admission



Percentage of patients who were current smokers given smoking cessation advice



References

- (1) Mikael Ekblad, Jyrki Korkeila, Liisa Lehtonen. "Smoking during pregnancy affects foetal brain development", Acta Paediatrica 104, no 1 (August 1, 2014).
- (2) Jouni J. K. Jaakkola, Mika Gissler. "Maternal Smoking in Pregnancy, Fetal Development, and Childhood Asthma", American Journal of Public Health 94, no. 1 (January 1, 2004): pp. 136-140.