A New Framework for Defining and Assessing Relapse in Psychosis: The Use of Electronic Case Records

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BACKGROUND

- Research investigating relapse prevention interventions in psychosis has been severely limited to date by the various definitions of relapse used across studies. Eisner, Drake and Barrowclough (2013) noted that of the 26 studies included in their systematic review, there were no less than 15 definitions of relapse used.
- Many of the relapse definitions which have been used predominantly focus on positive psychotic symptoms. However, relapse in psychosis is part of a wider context which goes beyond symptomatology.
- Reviews by Falloon et al. (1983) and Gleeson et al. (2010) stressed the need for a standardised decision making tool for measuring relapse in psychosis. This should consider symptom severity and duration thresholds, as well as social and treatment variables. Falloon et al. (1983) also discussed the potential for rating the severity of relapses which have occurred.
- Bebbington et al. (2006) developed a definition of relapse which benefited from consideration of severity and duration criteria for re-emerged symptoms, as well as social dysfunction and a clinical response from services. The authors assessed relapse through clinical case notes. However, there were also limitations with their definition of relapse, as well as a paucity of information on the feasibility of this method.

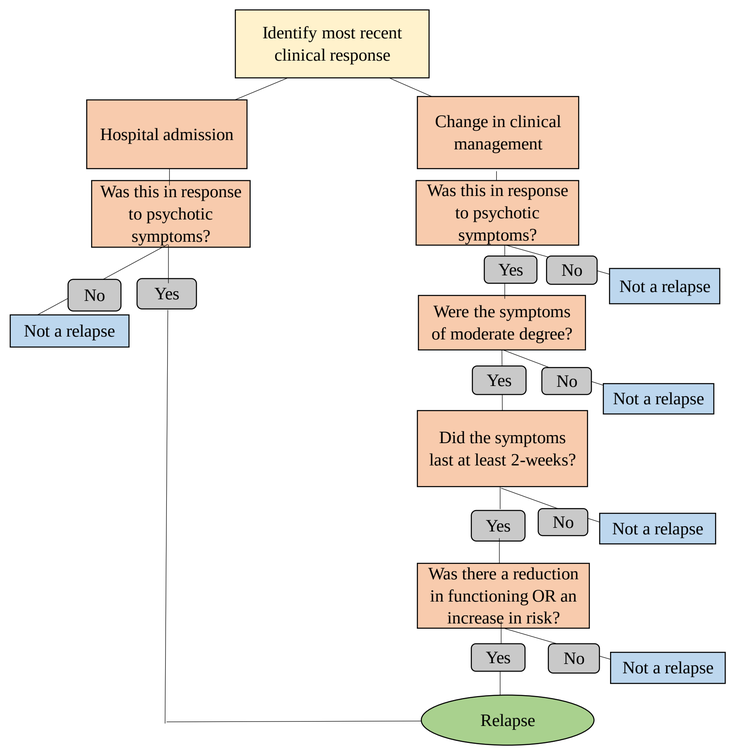
AIMS

- The aim of this study was to develop a new framework for defining and assessing relapse, taking into account previous work.
- An initial framework was constructed, built on that by Bebbington et al. (2006), that measured the presence and severity of relapse, as well as preceding remission.
- Key questions to address are 1. Is it feasible to extract necessary data for measuring relapse from electronic clinical records? 2. Are judgements of the presence, type, and severity of relapse reliable based on predetermined criteria?

METHODS

- An a priori framework was developed for defining and assessing relapse. The feasibility of this framework was assessed throughout .
  - >Initial criteria for relapse: re-emergence of psychotic symptoms of at least moderate severity, lasting at least two weeks, with evidence of a decline in social functioning, and a clinical response from services.
  - > Clinical responses were categorised as either a change in management (eg. Change in medication, referral to crisis team), a hospital admission (voluntary), or the use of The Mental Health Act to enforce treatment (involuntary hospital admission).
  - >For relapse to have occurred, evidence of preceding remission was required. Full remission was rated when there was evidence of a preceding period (minimum 4 weeks) of no psychotic symptoms. Partial remission was rated when there was evidence of a preceding period (minimum 4 weeks) of improved psychotic symptoms.
  - >Type I relapse=relapse following full remission. Type II relapse=relapse following partial remission
- Relapse was assessed through electronic clinical records of participants who previously gave informed consent to participate in the EMPOWER study: Early signs Monitoring to Prevent relapse in psychosis and prOmote Wellbeing, Engagement and Recovery.
- Each participants most recent relapse was identified from their clinical records based on the relapse criteria. Evidence of each separate indicator was extracted from the records by the primary researcher and was recorded on a relapse data extraction tool. Evidence of remission was also extracted. Identifiable information was removed and participants were allocated an identification number.
- The extracted data was then given to two separate members of the EMPOWER team to make judgments on the presence of relapse, the type of relapse, and severity of relapse. This was done on a scoring table which was developed.
  - >severity scores for the relapse were established by allocating a point to each present relapse indicator.
  - > comments were left on the relapse assessment form in instances of disagreement with data which had been extracted as evidence for any of the relapse indicators.
- Inter-rater reliability was established for judgements of the presence of overall relapse, presence of each relapse indicator, type of relapse, and severity scores.

Figure 1: Process for rating relapse



RESULTS

- As this was a new framework for assessing relapse, many problems were encountered during relapse assessments:
  - >These were considered as key outcomes of the research project and reported as the process evaluation.
  - >The matters that arose led to changes in the relapse assessment framework. The updated framework was used for all relapse assessments.
- Increase in risk was included as alternative and additional criteria to decline in social functioning.
- When a clinical response was identified, but any one of the other indicators could not be identified due to insufficient clinical entries, only a hospital admission could be rated as relapse in their absence:
  - >the method for identifying relapse is illustrated in figure 1.
  - >the scoring procedure was updated to ensure that the severity of hospital admissions was still reflected in the severity scores when other indicators were absent.
- Relapse often could not be identified due to electronic clinical records not dating back far enough. This was recorded on assessment forms.
- Preceding remission status could not be identified due to electronic clinical records not dating back far enough, or insufficient clinical entries:
  - >'inadequate evidence' could be recorded for remission in these instances.
  - >this resulted in a 'Unspecified' category for type of relapse in these instances.
- The definition of remission was updated to make clearer what evidence was required when rating remission.
- Excellent agreement was achieved for judgements of presence of relapse, type of relapse, presence of severity criteria, duration criteria, change in management, hospital admission, and involuntary hospital admission.
- Substantial agreement was achieved for judgements on the presence of increase in risk and decline in social functioning.

DISCUSSION AND CONCLUSION

- This study has resulted in a framework which takes into consideration limitations and recommendations of previous work, which encapsulates the multifaceted nature of relapse and allows the opportunity to quantify relapse assessments.
- The feasibility of this framework was assessed throughout and necessary changes were made to establish a more robust instrument for measuring relapse.
- It has been demonstrated that it is feasible to extract necessary evidence of relapse from electronic clinical records, with recommendations noted to account for any limitations.
- Although there were some problems in identifying relapse, these are less likely to occur if this framework is used in clinical trials.
- Inter-rater reliability was affected primarily by discrepancies of judgements of decline in social functioning and increase in risk. These could have been more clearly defined to avoid such issues.
- This study has provided the basis for a relapse assessment protocol to be created and disseminated, with relevant training manuals for future research to use.

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