Clinician Perspectives and Practices in Relation to Antipsychotic Side-effects in Psychosis

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Thesis Portfolio Abstract

Background: Antipsychotic medications are vital for treatment of psychosis related symptoms; however, they are associated with a range of adverse side-effects. Cardiometabolic and neurological side-effects are more routinely prioritised within clinical monitoring guidelines, nonetheless specific side-effects such as sedation have received comparatively limited attention. Sedation may impact daily functioning, motivation and treatment adherence, yet little is known about how sedation is defined and managed within mental health services. This portfolio aimed to examine clinicians' perspectives on antipsychotic side-effect practices, with specific focus on sedation.

Method: A systematic review included 29 studies exploring clinicians' attitudes and practices regarding antipsychotic side-effect assessment and management. A narrative synthesis was conducted following PRISMA guidance. Following review findings an empirical cross-sectional online survey was completed by 155 multidisciplinary clinicians working in NHS secondary mental health services across England. A questionnaire was developed for the purpose of this study, gathering information on conceptualisations, assessment practices, management strategies and perceived impact of sedation.

Results: The systematic review identified variability in side-effect monitoring practices, often influenced by an implicit hierarchy of harm. Observable or life-threatening adverse effects were prioritised, whereas quality of life related effects were less consistently assessed. The empirical paper found that clinicians estimated sedation affects approximately half of patients prescribed antipsychotics. Although most clinicians considered this a clinical problem, few viewed sedations as well understood. Assessment was predominantly informal, and management strategies were largely behavioural alongside medication adjustments. Sedation was perceived to have moderate to high impact on service engagement, employment, medication adherence, and hopefulness. Some clinicians also described sedation as therapeutically useful.

Conclusion: Sedation associated to antipsychotic medication appeared to be widely recognised within mental health services and yet remains inconsistently conceptualised and informally assessed. Sedation is viewed at times as a means of short-term stabilisation whilst also limiting engagement and longer-term recovery. Greater clarity and more consistent monitoring practices may support multidisciplinary teams to address sedation in ways that

better align with patient-centred care. Future research should explore how patients and clinicians understand and experience sedation across different stages of care and evaluate approaches to improve structured assessment and management.

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Finally, I want to acknowledge everyone living with or working alongside psychosis. I hope this research contributes, even in a small way, to improving understanding and care.

Chapter One.

Introduction Chapter

Word Count: 780 words

Psychosis is an umbrella term used to describe a cluster of symptoms resulting in profound disruptions in perception and a “loss of contact with reality” (NIMH, 2023). People experiencing psychotic symptoms may experience hallucinations, delusions and disorganised thinking, all of which can make everyday life challenging and incredibly distressing (McCarthy-Jones et al., 2013). In addition to these positive symptoms, psychosis is also characterised by negative symptoms, which refer to a reduction or loss of normal functioning, such as anhedonia, social withdrawal, and blunted affect (Kirkpatrick et al., 2006). Negative symptoms can often be more long-term and significantly impact quality of life (Austin et al., 2015; García-Fernández et al., 2022).

Psychosis is not a diagnosis in itself; rather, it is an umbrella term that encompasses psychotic disorders, such as schizophrenia, in which these symptoms are central and persistent features (Beer, 1996; Biedermann & Fleischhacker, 2016). Although relatively uncommon, psychotic disorders requiring support from mental health services affect approximately 3% of the general population at some point in their lives (Perälä et al., 2007). Nevertheless, the significant personal and social consequences associated with these conditions emphasise the need for prompt and effective intervention to minimise symptoms and enhance recovery (McGorry et al., 2008).

The National Institute for Health and Care Excellence (NICE) guidelines recommend a combination of psychological interventions and antipsychotic medication for the treatment of psychosis. With antipsychotics recognised as an effective first-line treatment for both acute and longer-term symptoms (NICE, 2014; Ceraso et al., 2022; Chow et al., 2023). Antipsychotics primarily act on the dopamine system to reduce positive symptoms. Their use aims to improve functioning, reduce distress, and prevent relapse (Chokhawala & Stevens, 2023; Lally & MacCabe, 2015). Evidence from clinical trials and real-world studies

consistently demonstrate that antipsychotic medications are effective in reducing acute episodes and lowering the likelihood of relapse, thereby promoting stability for patients and their families (Lieberman et al., 2005; Tiihonen et al., 2017).

Despite their clinical benefits, antipsychotics are associated with a broad range of adverse side-effects that can significantly affect patients' physical health and further impact their quality of life (de Araújo et al., 2014). Adverse effects may include sedation, weight gain, metabolic changes and extrapyramidal symptoms such as tremor, rigidity, and akathisia (Chow et al., 2023; Lieberman et al., 2005). Other long-term consequences may include sexual dysfunction, prolactin elevation, and cognitive impairment (Maguire, 2002). These side-effects can interfere with daily functioning, reduce social engagement, and negatively impact self-esteem, all of which may influence adherence to prescribed treatment and longer-term recovery (Lambert et al., 2004; Reeve et al., 2025). Non-adherence increases the likelihood of relapse and hospitalisation, perpetuating a cycle of illness (Kane et al., 2013; Legge et al., 2016). Understanding the full range of antipsychotic side-effects is therefore essential to ensure both safe and effective treatment (Werner & Coveñas, 2014).

Prescribing antipsychotic medication requires careful consideration, clinical judgement and individual assessments (Haynes et al., 2002; Stroup & Gray, 2018). Continued monitoring through medical reviews, physical health assessments, and feedback from patients and caregivers is vital for ensuring the early identification of adverse side-effects, allowing for adjustments to treatment as required (Poojari et al., 2023). Patient-centred approaches align with current guidelines to encourage collaborative, shared decision-making between clinicians and patients (Haynes et al., 2002). All members of the multidisciplinary team play a vital role in the process of assessing and managing the adverse effects of antipsychotic medication (Longden & Read, 2016; Roberts et al., 2018; Yeo et al., 2021). Clinicians'

knowledge, attitudes and training influence how routinely side-effects are assessed and management strategies to mitigate adverse outcomes (Ali et al., 2020; Roberts et al., 2018). Additionally, service level factors may also influence assessment and management of side-effects, for example, limitations in resources, time constraints, additional pressures and workload (Ali et al., 2020). Therefore, understanding the perspectives of patients, families, carers, and clinicians is essential to fully understand what may directly affect patient experiences and outcomes during treatment (Alasmee, 2020; NICE, 2014; Yeo et al., 2021).

Despite the pivotal role of antipsychotic medication in the treatment of psychosis, notable gaps remain in the literature. While patient perspectives have helped to form initiatives in patient-centred care and shared decision-making, relatively little research has focused on clinicians' experiences, attitudes, and management strategies regarding adverse side-effects. A limited understanding of clinicians' perceptions may prevent the development of practical and realistic strategies to improve monitoring practices and improve overall patient and clinician experience. Addressing these gaps in the literature is crucial to creating a more integrated understanding of assessment and management of antipsychotic side-effects. Alongside promoting the incorporation of clinician, patient and carer perspectives to provide the best possible care for people experiencing distressing symptoms and potential side-effects.

Chapter Two.

Clinicians' Attitudes and Practices Regarding Antipsychotic Assessment and Management of Side-effects: A Systematic Review

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This paper has been developed for submission to Schizophrenia Research. Author guidelines are outlined (Appendix A). Word count limit: up to 5000 words (excluding tables, figures and references).

Declarations of interest: None.

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Abstract

Background: Antipsychotic medications are central to the treatment of psychosis but are associated with a wide range of adverse side-effects. Variability in how these effects are assessed and managed may reflect differences in clinician perspectives, decision-making, and organisational context.

Aims of review: This review aimed to synthesise empirical research exploring clinicians' perspectives and reported practices regarding the assessment and management of antipsychotic side-effects.

Methods: Studies were identified by searching electronic databases CINAHL, Embase, MEDLINE and PsycINFO. Methodological quality was appraised using the Mixed Methods Appraisal Tool. A narrative synthesis was undertaken.

Results: Twenty-nine studies from fourteen countries were included. Assessment practices were variable and often informal, frequently dependent on clinician judgement and patient disclosure rather than routine structured monitoring. Observable or life-threatening adverse effects were prioritised, whereas quality-of-life-related side-effects were less consistently assessed. Management approaches were largely reactive. Organisational factors, including time pressures and fragmented responsibilities, influenced decision-making and guideline implementation.

Conclusion: Side-effect assessment and management appear shaped by an implicit hierarchy of harm and contextual service pressures rather than consistently embedded preventive practices. Future research should examine how monitoring processes translate into clinical action and evaluate implementation strategies addressing structural barriers to consistent side-effect management.

Keywords: clinicians, antipsychotics, psychosis, attitudes, practices, side-effects, systematic review

Introduction

Antipsychotic medications are vital in the treatment of severe mental illnesses, including psychosis and bipolar disorder (Lally & MacCabe, 2015; Singh et al., 2012). These medications have been shown to reduce psychotic symptoms, prevent relapse and support better long-term functional outcomes for people experiencing these symptoms (Ascher-Svanum et al., 2006; Moncrieff & Horowitz, 2025; Tandon, 2011). However, the use of antipsychotic medication is frequently associated with a wide range of side-effects, including metabolic, cardiovascular, neurological, and hormonal complications (Stroup & Gray, 2018). Common adverse effects include weight gain, diabetes, extrapyramidal symptoms, sedation, and sexual dysfunction (Lally & MacCabe, 2015; Lieberman et al., 2005). Adverse effects significantly affect quality of life, adherence and relapse risk, making systematic monitoring central to psychiatric care (DiBonaventura et al., 2012; Staring et al., 2009; NICE, 2014; McCann et al., 2008; Reeve et al., 2025).

Variability in monitoring has been observed across clinicians, service users and healthcare settings, influenced by resources, training and experience (Alasmee, 2020; Lindström et al., 2005; Nosè et al., 2012; Ali et al., 2020; Poojari et al., 2023; Pereira et al., 2019). National guidelines recommend regular and systematic monitoring of physical health and structured side-effect assessments (NICE, 2014; NHS England, 2024). However, research indicates adherence to these recommendations can be inconsistent, with certain side-effects receiving less focus than others, such as sedation and sexual dysfunction (Reeve et al., 2025; Knegtering et al., 2003).

Clinicians' attitudes, knowledge and confidence may influence these variations (Begum et al., 2020). Clinicians may focus primarily on symptom reduction, perceiving living with side-effects in the longer term as less clinically relevant or inevitable (Stroup &

Gray, 2018). Professional training and confidence in managing complex side-effects may also shape decisions (Stomski et al., 2016). Clinicians face barriers including time constraints, access to monitoring tools, patient health and increasing caseloads; all of which could negatively impact consistency of side-effect management (Begum et al., 2020). Conversely, the development of structured assessment tools, clinical audits, continuing professional development training, and clear local guidelines have been associated with improved monitoring practices (Hynes et al., 2020; NICE, 2014; Meltzer, 2001).

Despite the critical role clinicians play, there is limited synthesised evidence examining how clinicians perceive and approach antipsychotic side-effect assessment and management in routine practice. Existing primary research has included surveys, focus groups, and clinical audits, often concentrating on specific medications or side-effects rather than providing a broader account of clinical practice (Ali et al., 2020; Ceraso et al., 2022; Reeve et al., 2025). In addition, prior reviews have examined physical health monitoring, prescribing attitudes and side-effect measurement tools (Ali et al., 2020; Sajatovic et al., 2017; Stomski et al., 2016; van Strien et al., 2015). However, no review has synthesised empirical research exploring clinicians' perspectives and reported practices relating to the broader assessment and management of antipsychotic side-effects in psychosis.

The present systematic review, therefore, aimed to synthesise existing literature on clinicians' perspectives and reported practices regarding the assessment and management of antipsychotic side-effects.

Research Question

The review will address the following research question:

1. What are clinicians' perspectives on the assessment and management of antipsychotic side-effects, including attitudes and beliefs, influencing factors, and reported clinical practices?

Methods

This systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidance (Page et al., 2021). The protocol for this review was registered with the PROSPERO (International Prospective Register of Systematic Reviews) online database (reference ID: CRD420251039014).

Eligibility Criteria

Eligible studies included empirical qualitative, quantitative, or mixed-methods research examining clinicians' perspectives, attitudes, beliefs, or practices related to antipsychotic side-effects in the treatment of psychosis. Participants were required to be clinicians involved in the prescribing, monitoring, or management of antipsychotic medication, including psychiatrists, general practitioners, nurses, psychologists, occupational therapists, social workers, and other members of multidisciplinary teams. Studies conducted in inpatient, community, forensic, early intervention, or primary care settings where antipsychotic management occurred were eligible.

Studies focusing exclusively on service users, carers, or non-clinical populations were excluded. Studies examining antipsychotic use in populations other than psychosis (e.g. dementia or learning disability services) were also excluded, given differences in prescribing rationale, risk–benefit considerations, and service contexts across diagnostic groups. Non-

empirical and non–peer-reviewed publications were excluded. No restrictions were applied to the publication date. Only studies published in English were included.

Information Sources and Search Strategy

Electronic searches were conducted in CINAHL, Embase (Ovid), MEDLINE (PubMed), PsycINFO, and by manually searching reference lists of the included full-text papers. The search strategy combined terms relating to clinician roles, perceptions or attitudes, and antipsychotic medications, including both typical and atypical agents. Search terms were combined using the Boolean operator (AND), and the truncation symbol (*) was applied to capture variant word forms (Table 1).

Table 1

Search Terms

Clinician terms		Perceptions/attitude terms		Antipsychotic medication terms
psychologist OR psychiatrist* OR nurse* OR clinician* OR Practitioner* OR social worker* OR occupational therapist* OR cognitive behaviour therapist* OR therapist* OR support worker* staff* OR clinical*	**AND**	*"perception" OR "perspective" OR "attitude" OR "belief" OR "opinion" OR "survey" OR phenomenolog* OR qualitative* Or "interview" OR "focus group" OR quantitative**	**AND**	*antipsychotic* OR neuroleptic* OR Aripiprazole* OR Quetiapine* OR Amisulpride* OR Asenapine* OR Benperidol* OR Cariprazine* OR Chlorpromazine* OR Clozapine* OR Flupentixol* OR Flupentixol decanoate* OR Fluphenazine decanoate* OR Haloperidol* OR Haloperidol decanoate* OR Levomepromazine OR Lurasidone* OR Olanzapine* OR Olanzapine pamoate monohydrate* OR Paliperidone* OR Paliperidone palmitate* OR Periciazine* OR Pimozide* OR Prochlorperazine* OR Promazine* OR Quetiapine* OR Risperidone* OR Sulpiride* OR Trifluoperazine* OR Zuclopenthixol* OR Zuclopenthixol decanoate* OR Zuclopenthixol dihydrochloride*

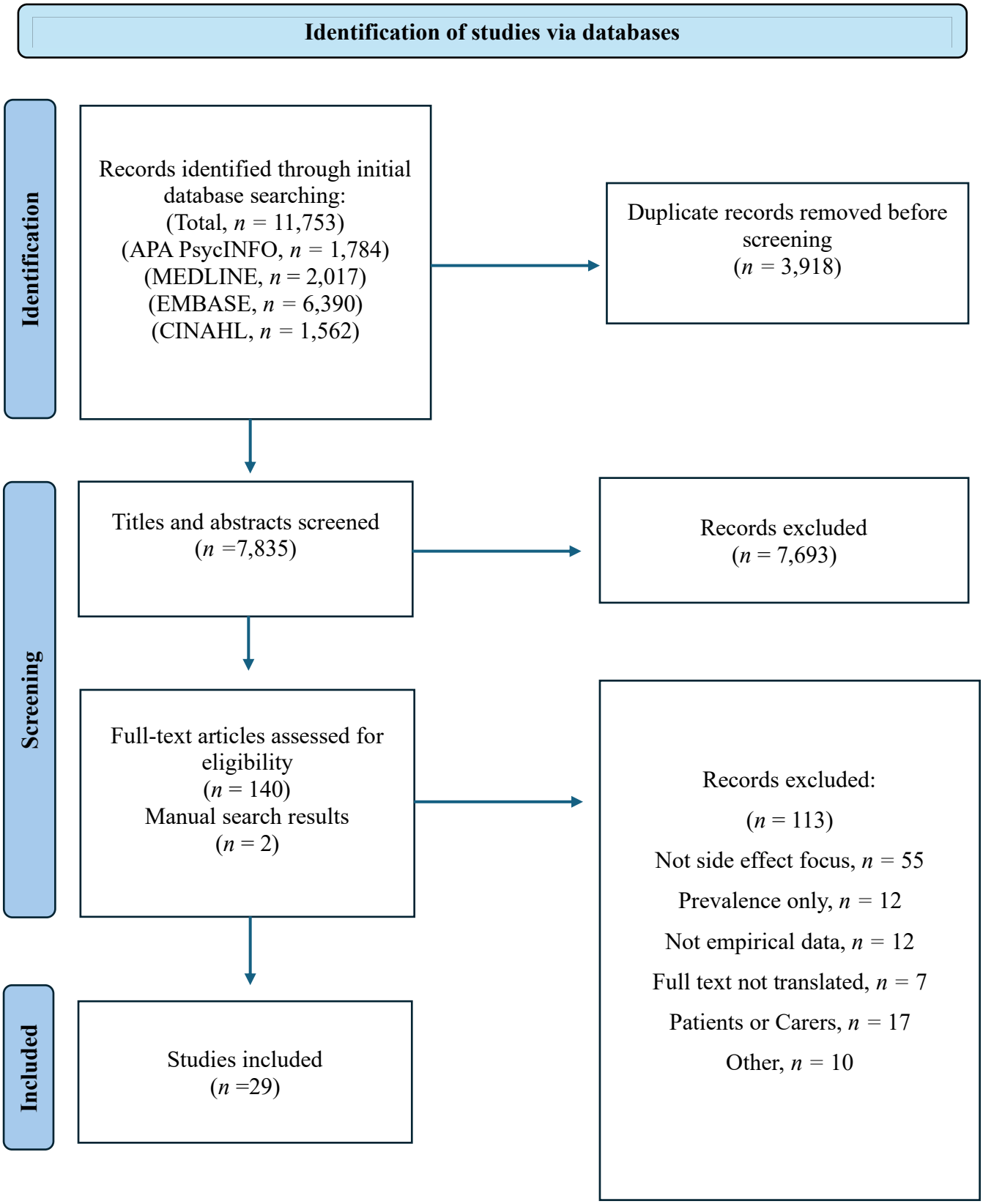
Study Selection

The final search was run on 28th October 2025 and generated a total of 11,753 records. Search results were merged and screened using Rayyan. This software identified potential duplicates, which were manually screened and duplicates removed (N= 3,918). Titles and abstracts were screened against eligibility criteria by the primary reviewer (n = 7,835). To assess screening consistency, a random selection of 20% of titles and abstracts were independently reviewed by a second, blinded reviewer**,** demonstrating an 'almost perfect' agreement ($\kappa = 0.89$) (Landis & Koch, 1977).

Full-text articles of potentially eligible studies were subsequently assessed for inclusion. A total of 140 papers remained for full-text screening, and hand searching from the reference list of the included studies generated two additional papers. To assess full-text screening consistency, 100% of full-text articles were independently screened by a second blinded reviewer, showing an 'almost perfect' agreement ($\kappa = 0.99$). Any discrepancies were resolved through discussion. The study selection process is presented using a PRISMA 2020 flow diagram **(**Figure 1).

Figure 1

Prisma Diagram



Data Extraction

Relevant data from all included studies were extracted by the primary reviewer into a standardised Excel form. Extracted information included study characteristics (author, year, country), clinician characteristics (professional role and setting), antipsychotic medication(s) and side-effects assessed.

Quality Appraisal and Data Analysis

Methodological quality was assessed using the Mixed Methods Appraisal Tool (MMAT) (Hong et al., 2018) (Appendix B), with studies appraised according to their design category. Consistent with MMAT guidance, appraisal findings were used to inform the interpretation of results rather than to generate overall quality scores.

Given the anticipated heterogeneity across clinician groups, clinical settings, study designs, and outcomes, a narrative synthesis was undertaken following the guidance of Popay et al. (2006). Study findings were initially extracted and tabulated before being compared across studies to identify recurring patterns in clinicians' reported assessment and management practices, attitudes and influencing factors. Methodological quality appraisal informed interpretation of the synthesis rather than study inclusion.

Results

Study Characteristics

A total of 29 studies were included in the review, published between 1995 and 2023**.** Studies were conducted across 14 countries, predominantly the United Kingdom and Australia. Most studies focused on clinicians working in specialist mental health services, with inpatient, outpatient, community, and early intervention settings all represented. Study

designs were heterogeneous and included qualitative (n=8), quantitative (n=17) and mixed-methods (n=4) approaches.

Participants included psychiatrists, nurses and multidisciplinary professionals. Sample sizes ranged from small qualitative studies (Morrison et al., 2015a; Quinn et al., 2012) to large national surveys (Sugawara et al., 2014; Monteleone et al., 2019).

The clinical focus of the included studies also varied. Many studies examined clinicians' perspectives on antipsychotic side-effects in general, while others focused on specific adverse effects or prescribing contexts, including metabolic complications, neurological side-effects, sexual dysfunction and clozapine use. See Table 2 for a summary of study characteristics.

Table 2

Summary of study characteristics.

Author (year)	Country	Design	Professional role	Total participants (N)	Clinical setting	Medication focus	Side-effect focus
Abdulhaq et al. (2021)	Jordan	Quantitative	Psychiatrists	91	Psychiatric hospitals/clinics	Second generation antipsychotics	Metabolic side-effects
Bennett et al. (1995)	United Kingdom	Quantitative	Community psychiatric nurses	50	Community caseloads	Antipsychotics	Metabolic side-effects
Blagden et al. (2021)	United Kingdom	Qualitative	Doctors, nurses, support workers	17	Secure mental health unit	Clozapine	Physical health monitoring
Castberg et al. (2006)	Norway	Quantitative	Psychiatrists, residents	70	Inpatient, outpatient, private	Antipsychotics & antidepressants	Adverse drug reactions

Author (year)	Country	Design	Professional role	Total participants (N)	Clinical setting	Medication focus	Side-effect focus
Cooper et al. (2019)	United Kingdom	Qualitative	Psychiatrists, nurses, others	35	Community mental health teams	Antipsychotics	Long-term adverse effects
Daod et al. (2019)	Israel/United Kingdom/Ireland	Quantitative	Psychiatrists	259	Inpatient & outpatient	Clozapine	Multiple side-effects
Day et al. (1998)	United Kingdom	Quantitative	Psychiatrists	50	Adult psychiatry services	Neuroleptics	Multiple side-effects
Helbling et al. (2006)	Switzerland/United Kingdom	Quantitative	General practitioners	100	Primary care	Antipsychotics	Multiple side-effects
Ignjatovic Ristic et al. (2021)	Serbia	Quantitative	Psychiatrists	161	Inpatient, outpatient	Clozapine	Multiple side-effects
Kikkert et al. (2006)	United Kingdom/ Germany/ Netherlands	Qualitative	Mental health professionals	28	Not specified	Antipsychotics	Side-effects & adherence

Author (year)	Country	Design	Professional role	Total participants (N)	Clinical setting	Medication focus	Side-effect focus
Laugharne et al. (2004)	United Kingdom, Netherlands, Spain	Quantitative	Psychiatrists	230	Not specified	Neuroleptics	Tardive dyskinesia
Llorca et al. (2017)	United States of America	Qualitative	Psychiatrists	4	Not specified	Atypical antipsychotics	Treatment-emergent adverse events
Malhi et al. (2010)	Australia	Mixed methods	Psychiatrists	23	Inpatient & community	Antipsychotics	Tolerability in FEP
Monteleone et al. (2019)	Italy	Quantitative	Psychiatrists	750	Inpatient, outpatient, private	Antipsychotics	Physical & sexual side-effects
Morrison et al. (2015a)	Australia	Qualitative	Case managers	9	Community mental health	Antipsychotics	Multiple side-effects
Morrison et al. (2015b)	Australia	Qualitative	Case managers	9	Community mental health	Antipsychotics	Chronic & QoL-related effects
Morrison et al. (2017)	Australia	Mixed methods	Mental health nurses	140	Acute, rehab, primary care	Antipsychotics	Side-effect clusters

Author (year)	Country	Design	Professional role	Total participants (N)	Clinical setting	Medication focus	Side-effect focus
Morrison et al. (2018)	Australia	Quantitative	Mental health nurses	171	Clinical, education, management	Antipsychotics	Multiple side-effects
Nash et al. (2021)	United Kingdom	Qualitative	GPs, psychiatrists, nurses	23	Primary & secondary care	Antipsychotics	Cardiometabolic effects
Nielsen et al. (2010)	Denmark	Quantitative	Psychiatrists	100	University hospitals	Clozapine	Multiple side-effects
Oloyede et al. (2023)	United Kingdom	Mixed methods	Early intervention clinicians	123	EIP services	Clozapine	Physical side-effects
Patel et al. (2005)	United Kingdom	Quantitative	Community psychiatric nurses	70	Community services	Depot antipsychotics	Multiple side-effects
Potkin et al. (2013)	United States of America	Qualitative (observational)	Psychiatrists, NPs	20	Community mental health	Long-acting injectable antipsychotics	General side-effect concerns

Author (year)	Country	Design	Professional role	Total participants (N)	Clinical setting	Medication focus	Side-effect focus
Qadir et al. (2023)	United Kingdom & India	Mixed methods	Psychiatrists	190	Acute, community, private	Antipsychotics (incl. clozapine)	Multiple side-effects
Quinn et al. (2012)	Australia	Qualitative	Mental health nurses	14	Adult mental health	Antipsychotics	Sexual dysfunction
Smith & Henderson (2000)	United Kingdom	Quantitative	Psychiatrists	121	Mental health trust	First generation antipsychotics	Disclosed side-effects
Stomski et al. (2016)	Australia	Quantitative	Mental health nurses	140	Acute, rehab, primary care	Antipsychotics	Physical & sexual side-effects
Sugawara et al. (2014)	Japan	Quantitative	Psychiatrists	2583	Not specified	Antipsychotics	Metabolic side-effects
Takeuchi et al. (2016)	Japan	Quantitative	Psychiatrists, pharmacists	104	Psychiatric hospitals	Clozapine	Multiple side-effects

Methodological Quality

Methodological quality varied across the study designs. Qualitative studies generally demonstrated high quality coherence between data collection, analysis, and interpretation. Quantitative studies typically met criteria relating to sampling strategy and measurement; several studies provided insufficient detail to be able to fully assess non-response biases or completeness of reporting (Day et al., 1998; Smith & Henderson, 2000). Mixed-method studies met criteria relating to the quality of the separate components, but integration of data sources and justification of design were not always clear (Malhi et al., 2010; Oloyede et al., 2023).

No studies were excluded based on quality; appraisal findings informed interpretation. Findings derived primarily from small qualitative samples or self-reported survey data were interpreted more cautiously, particularly where observational or practice-based data was limited. Summary of the MMAT presented in Table 3.

Table 3

Summary of Mixed Methods Appraisal Tool (Hong et al., 2018)

Author(s) Year	Qualitative					Quantitative					Mixed Methods				
	1.1	**1.2**	**1.3**	**1.4**	**1.5**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**5.1**	**5.2**	**5.3**	**5.4**	**5.5**
Day et al (1998)						Y	CT	Y	N	Y					
Blagden et al (2021)	Y	Y	Y	Y	Y										
Takeuchi et al (2016)						Y	N	Y	N	Y					
Castberg et al (2006)						Y	N	Y	N	Y					
Patel et al (2005)						Y	N	Y	N	Y					
Qadir et al (2023)						Y	N	Y	N	Y					
Stomski et al (2016)						Y	N	Y	N	Y					
Llorca et al (2017)	Y	Y	Y	Y	Y										
Bennett et al (1995)						N	Y	Y	N	Y					
Monteleone et al (2019)						Y	N	Y	N	Y					

Author(s) Year	Qualitative					Quantitative					Mixed Methods				
	1.1	**1.2**	**1.3**	**1.4**	**1.5**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**5.1**	**5.2**	**5.3**	**5.4**	**5.5**
Helbling et al (2006)						Y	Y	Y	N	Y					
Morrison et al (2015a)	Y	Y	Y	Y	Y										
Morrison et al(2015b)	Y	Y	Y	Y	Y										
Morrison et al (2018)						N	Y	Y	Y	Y					
Morrison et al (2017)											N	Y	Y	N	Y
Laugharne et al (2004)						N	Y	Y	N	Y					
Kikkert et al (2006)	Y	Y	Y	Y	Y										
Cooper et al (2019)	Y	Y	Y	Y	Y										
Abdulhaq et al (2021)						Y	Y	Y	N	Y					
Quinn et al (2012)	Y	Y	Y	Y	Y										
Potkin et al (2013)	Y	Y	Y	Y	Y										
Ignjatovic Ristic et al (2021)						Y	Y	Y	N	Y					

Author(s) Year	Qualitative					Quantitative					Mixed Methods				
	1.1	**1.2**	**1.3**	**1.4**	**1.5**	**3.1**	**3.2**	**3.3**	**3.4**	**3.5**	**5.1**	**5.2**	**5.3**	**5.4**	**5.5**
Nielsen et al (2010)						Y	Y	Y	N	Y					
Daod et al (2019)						Y	Y	Y	N	Y					
Sugawara et al (2014)						N	Y	Y	N	Y					
Nash et al (2021)	Y	Y	Y	Y	Y										
Malhi et al (2010)											Y	Y	Y	N	N
Oloyede et al (2023)											Y	Y	Y	N	Y
Smith & Henderson (2000)						N	Y	N	N	Y					

Note. Y= Yes, N= No

Narrative Synthesis

A narrative synthesis was completed to integrate study findings across study design and settings. Informed by the review question, results have been organised by side-effects to reflect how clinicians described assessment, management, attitudes and decision-making within specific areas of adverse effects. Findings are therefore presented across cardiometabolic and physical health effects, neurological side-effects, sexual dysfunction, sedation and quality of life impacts, with broader organisational and clinical influences considered throughout.

Cardiometabolic and physical health

Cardiometabolic side-effects were the most examined side-effect type across the included studies and were consistently recognised by clinicians as clinically important.

Assessment

High reported awareness of metabolic risk was seen in large national surveys, however, sustained practices were less consistently embedded. In the largest survey included (n = 2583), 85.2% of psychiatrists reported concern regarding metabolic risk when prescribing antipsychotics (Sugawara et al., 2014). Whereas 76.3% reported monthly inpatient weight monitoring and 70.1% reported fasting glucose monitoring more than twice per year. Additionally, 23.7% indicated that fasting glucose was not routinely monitored and only 4.5% reported routinely measuring waist circumference. Interestingly, 47.6% reported monitoring frequency was based primarily on personal clinical judgement instead of guideline recommendations, and only 20.6% considered monitoring practices were sufficient.

Monteleone et al. (2019) surveyed 750 psychiatrists. This study reported electrocardiogram monitoring in 96% of newly diagnosed patients, which reduced to 86% in the treatment continuation stage. Fasting glucose monitoring in 88%, which reduced to 79% in the treatment continuation stage. Blood pressure monitoring reduced from 80% in newly diagnosed patients to 68% in therapeutic continuation. It was reported lipid monitoring exceeded 80% across all three stages of illness, diagnosed for the first time, in therapeutic change and in therapeutic continuation. Furthermore, 74% of psychiatrists (n = 91) reported awareness of metabolic monitoring guidelines (Abdulhaq et al., 2021). Before initiation of second-generation antipsychotics, 60% reported always monitoring fasting glucose and 55.1% always assessing body mass index. During ongoing treatment, these rates reduced to 47.4% and 49.4%, respectively. Waist circumference monitoring remained limited, 15.7% at baseline and 13.8% during follow-up (Abdulhaq et al., 2021).

Several qualitative and mixed-method studies included in the review provided additional context. Clinicians described uncertainty regarding responsibility for ongoing physical health monitoring, especially where care was shared between primary and secondary services (Nash et al., 2021). Furthermore, assessment practices appeared to be influenced by awareness of metabolic risk, but also by organisational clarity and service design (Blagden et al., 2021; Morrison et al., 2017).

Management

Pharmacological change was frequently reported but appeared contingent on psychiatric stability. In Sugawara et al. (2014), 80.2% of psychiatrists reported they would switch antipsychotics in response to metabolic abnormalities such as elevated blood glucose or dyslipidaemia. However, when weight gain occurred in otherwise psychiatrically stable patients, 55% reported they would continue monitoring without immediate medication

change, 25.9% would switch antipsychotics, and 12.1% would reduce the dose. Conversely, only 14.7% would consult a medical specialist. Abdulhaq et al. (2021) reported that 88% of participants selected antipsychotics with lower metabolic risk profiles, 59% prescribed additional medications such as metformin and 25.3% used dose reduction strategies. Additionally, 96% reported general clinical observation as a management strategy.

Qualitative findings provided further insight into this pattern. Across interviews with 23 healthcare professionals, mental health stability was commonly prioritised over physical health concerns. One participant described this as choosing between “two evils”, reflecting the perceived trade-off between physical health risk and mental health stability. Switching antipsychotics was typically characterised as a reactive intervention. Additionally, one clinician described reluctance to “rock the boat” once psychiatric stability had been achieved. Specifically, worsening diabetes was managed through antidiabetic medication rather than modification of antipsychotic therapy. These findings suggest that while cardiometabolic risk was acknowledged, decisions were influenced by concern about destabilising mental health.

Attitudes and influencing factors

Helbling et al. (2006) demonstrated comparatively high tolerance thresholds for metabolic side-effects. General practitioners endorsed continued long-term treatment (49.5%) despite significant weight gain (n= 100). Sugawara et al. (2014) reported lower rates of switching antipsychotics when patients were stable in their mental health. These findings suggest clinicians frequently weighed metabolic risk against relapse prevention when considering medication changes.

Neurological side-effects

Neurological side-effects, such as extrapyramidal symptoms and tardive dyskinesia (TD), were addressed in seven studies. The findings found these side-effects to be more serious and less tolerable than metabolic effects.

Assessment and disclosure

Smith and Henderson (2000) reported that extrapyramidal side-effects were discussed unprompted in 82.7% of consultations reported by psychiatrists (n = 121). Additionally, Laugharne et al. (2004) reported that although 87% of respondents from the United Kingdom (n = 81) discussed TD risk at least sometimes and only 17% reported routinely informing patients. Additionally, 30% of Spanish respondents (n= 43) reported never informing patients of the risk of TD. Bennett et al. (1995) found that while Parkinsonism (62%), akathisia (56%), and dystonia (44%) were relatively commonly monitored by community psychiatric nurses (n = 50), tardive dyskinesia was reported by only 20%, and malignant neuroleptic syndrome was not identified by any respondents.

Attitudes and tolerance

Helbling et al. (2006) found that movement disorders were the adverse effect most likely to prompt immediate discontinuation, with 48.5% reporting no tolerance threshold. Additionally, Castberg et al. (2006) found 90% of psychiatrists and residents (n = 70) rated adverse reaction severity as important or very important in determining whether to submit a report. However, 39% of respondents had never submitted a report to the national medicine agency.

Sexual side-effects

Assessment

Monteleone et al. (2019) reported that only 3% used psychometric tools to assess sexual dysfunction. Smith and Henderson (2000) discussed sexual dysfunction unprompted in 52% of consultations, compared with 82% for extrapyramidal side-effects. Additionally, Quinn et al. (2012) reported less than half of participants proactively discussed sexual side-effects (n =14). The remaining mental health nurses included in the study reported addressing sexual side-effects indirectly within broader medication reviews.

Management and attitudes

Nurses described avoiding direct discussion due to discomfort and concerns about causing embarrassment, particularly across gender differences (Quinn et al., 2012). Participants also expressed concern that providing information about sexual side-effects might reduce medication adherence. Broader qualitative findings from interviews with case managers (n = 9), while not specific to sexual side-effects, described limited use of structured side-effect assessment and variable views regarding responsibility for management (Morrison et al., 2015a). Management strategies were sometimes characterised by reassurance, monitoring, or general medication review rather than active modification of treatment.

Clozapine specific perspectives

Assessment

Ignjatovic Ristic et al. (2021), 83.9% of psychiatrists (n = 161) reported frequent leukocyte monitoring, and 82% considered serum level measurement useful. Daod et al. (2019) reported only 15% of participants (n = 259) were aware of the recommended therapeutic plasma levels, and Neilsen et al. (2010) reported 33% of participants (n = 100) knew risk of agranulocytosis is at its highest within the first 6 months of commencing clozapine.

Management

Daod et al. (2019), 71.3% of participants acknowledged agranulocytosis risk and 82% non-adherence concerns as factors delaying initiation of clozapine. Additionally, 53.3% of participants reported initiating clozapine in line with accepted guidelines. Nielsen et al. (2010) found that 64.7% of clinicians would combine antipsychotics rather than prescribe clozapine.

Attitudes and influencing factors

Clozapine was viewed as effective but associated with substantial perceived risk. Fear of agranulocytosis (68%), weight gain (56%), and sedation (39%) were commonly endorsed barriers to starting clozapine (Ignjatovic Ristic et al., 2021). In early intervention in psychosis services, Oloyede et al. (2023) reported that 37% of clinicians (n = 123) perceived clozapine to be under-prescribed, with monitoring requirements and patient side-effect concerns rated as the most important barriers. Blagden et al., (2021), indicated unclear responsibility and knowledge is a barrier to effective clozapine monitoring practices. One participant stated, *"new nurses really struggle, they don't know the side effects"*.

Quality of life side-effects

Quality of life impacts, including sedation and fatigue, were primarily explored in qualitative studies. Morrison et al. (2015a) described management strategies including night-time dosing adjustments, structured daytime activity, exercise, dietary advice and, where feasible, dose reduction. These strategies were typically framed as supportive adaptations rather than immediate medication change.

In single site observational study of psychiatrist and patient consultations, Potkin et al. (2013) reported that 67% of consultations involved clinician-led decisions without patient or caregiver input, while only 10% involved patients actively making a treatment decision. Among 38 patients receiving long-acting injectable antipsychotics, only four switched or discontinued due to adverse effects, including one discontinuation for restless legs and three switches due to fatigue or hyperprolactinaemia.

Clinical decision making

Throughout side-effect types, several aspects influence assessment and management practices. Qadir et al. (2023) reported that psychiatrists (n = 190) country-specific differences observed, side effects being the main reason for switching in the UK (91%), whereas poor clinical efficacy was more prevalent in India (95%). Qualitative findings similarly reluctance to alter antipsychotic treatment in stable patients despite emerging physical health concerns (Nash et al., 2021).

Organisational factors influenced what was feasible in practice. Castberg et al. (2006) found that 46% of clinicians reported lack of time as a barrier to adverse drug reaction reporting, while Patel et al. (2005) found that 23% of community psychiatric nurses reported insufficient time for monitoring.

Morrison et al. (2017) identified unclear responsibility between services as a barrier to consistent assessment. Patient involvement was variable; observational findings similarly demonstrated predominantly clinician-led consultations (Potkin et al., 2013). Although clinicians endorsed shared decision-making in principle, routine implementation appeared less consistent.

Discussion

This systematic review found assessment and management of side-effects from antipsychotic medications appeared inconsistent across the 29 studies included. Cardiometabolic risks were widely recognised and more consistently monitored, particularly at treatment initiation. Although consistent assessment follow-up was less reliably integrated into routine care. Neurological side-effects were associated with lower tolerance thresholds and more immediate intervention. In contrast, sexual dysfunction and other side-effects impacting quality of life were less routinely assessed and were more dependent on patient disclosure and clinician discretion. Although methodological quality varied across studies, recurring findings observed across different study designs informed the principal interpretations presented below.

Assessment was frequently informal and disclosure dependent. Management of side-effects was largely reactive and was also found to be inconsistent. Medication changes were more readily considered in response to clinically measurable or acutely serious risks but were often cautious or delayed when psychiatric stability had been achieved. Relapse prevention and symptom control remained central to clinical reasoning, and organisational constraints further influenced what was feasible in practice.

Additionally, findings suggest the presence of an implicit hierarchy of harm. Side-effects associated with measurable biomedical markers or acute safety risks were more likely to be prioritised and acted on. Quality of life-related side-effects were less consistently embedded into routine practices.

Assessment practices

A key pattern, consistently identified across studies of varying methodological approaches, across multiple studies was the recognition of side-effects was dependent on what was observed, measurable or explicitly reported. Observable neurological and metabolic effects were more consistently assessed (Monteleone et al., 2019; Quinn et al., 2012; Smith & Henderson, 2000). This aligns with clinical guidance in the United Kingdom (UK), stating comprehensive physical health assessments, including routine blood test monitoring, should be completed and shared under shared-care agreements (Kowalchuk et al., 2019; NICE, 2015). In comparison, sexual dysfunction and broader quality of life impacts were less routinely explored.

There was also reliance on patient disclosure, further shaping what is explored in clinical practice. While disclosure may appear patient-centred, it can place responsibility on individuals to identify, understand and explain medication-related side-effects within reviews with professionals they may not feel completely comfortable with (Day et al., 2005). This approach may disadvantage people with reduced health literacy, communication difficulties or who are concerned about the stigma associated with medications or side-effects (NHS England, 2025; Parekh et al., 2018). Also, power dynamics between patient and professional could further impact side-effect reporting (Joseph-Williams et al., 2014; Laugharne et al., 2012). Consequently, assessment practices may inadvertently privilege those who are more confident, articulate or have a strong family support system, instead of those experiencing the greatest distress or who have social communication difficulties.

Assessment tools and implementation

Structured assessment tools and monitoring frameworks were described across several studies, however, the impact on practice appeared inconsistent. Tools were suggested to be used primarily for documentation or audit purposes (Morrison et al., 2017; Sugawara et al.,

2014). Alternatively, it has been found structured tools can be used as a prompt for meaningful conversations or intervention (Kotronoulas et al., 2014). This finding highlights tools alone are insufficient to change behaviour when responsibility for follow-up is unclear, or clinicians lack time, authority, and resources to act on the information collected. Monitoring of side-effects may therefore be seen by clinicians and patients as performative, signalling adherence to policy without guaranteeing improved care. This can unintentionally affect the perceived importance of the documentation, limiting implementation in services and reducing patient engagement in assessment (Clynch & Kellett, 2015).

These findings across the included studies suggest broader implementation challenges; introducing structured tools redistributes work and accountability. Without clarity on who is responsible and the escalation pathways, completion of these tools may not translate into action. Therefore, variability in practice cannot be understood only as individual non-compliance, but also because of organisation design and multiple competing demands within mental health services (Christino et al., 2013).

These findings suggest that effective monitoring alone is insufficient to improve side-effect management. Organisational factors, including time pressures, staffing constraints, and competing clinical priorities, alongside professional uncertainty regarding responsibility for follow-up and prescribing decisions, may limit clinicians' ability to act on identified concerns. At a broader system level, fragmented care pathways and unclear communication between services may further prevent monitoring information from translating into meaningful clinical action. Improving side-effect management may require organisational and system-level changes in addition to routine monitoring processes.

Management practices

Management of antipsychotic side-effects aligned with the reactive nature of assessment practices. Interventions were commonly initiated once side-effects interfered with adherence and perceived risk. Medication adjustments were approached with caution; clinicians prioritised stability and relapse prevention when considering dose reduction or switching medications (Morrison et al., 2015a; Abdulhaq et al., 2021; Nash et al., 2021; Qadir et al., 2023). This pattern was consistently reported across several studies, suggesting that cautious prescribing is a recurring feature of clinical practice rather than an isolated finding. Although clinically understandable given the consequence of relapse, this may contribute to the acceptance of persistent side-effects when treatment is perceived as effective, despite longer-term impacts and patient distress (Hughes & Matheson, 2016; Hynes et al., 2020). These findings are consistent with a predominantly reactive model of side-effect management, in which monitoring and intervention occur after problems emerge rather than as part of preventative care. Psychiatric stability is framed as the primary therapeutic goal, and therefore, physical or impacts to daily life may be tolerated until they reach clinical urgency.

Across the studies in this review, the types of risk were described varied. Life-threatening or irreversible complications tended to receive greater focus than experiential harms such as weight gain, sedation or sexual dysfunction (Castberg et al., 2006; Takeuchi et al., 2016; Laugharne et al., 2004). This prioritisation is clinically understandable, as preventing acute deterioration and serious adverse effects is a fundamental responsibility in psychiatric care and adheres to guidance on prescribing antipsychotics (BNF, 2025; NICE, 2026). An exclusive focus on immediate safety risks may unintentionally miss the significance of less visible effects accumulate over time and substantially affect daily

functioning, adherence and long-term health (Arana et al., 2000; Haddad & Sharma, 2007). These findings suggest management decisions are strongly influenced by perceived immediacy and severity of risk. However, it may also contribute to the gradual normalisation of persistent side-effects impact quality of life.

This pattern appears to reflect not only individual clinical reasoning, but also broader service pressures. In systems focused toward managing acute risk and preventing crisis, there may be less structural emphasis on addressing chronic, daily life side-effects. As a result, quality of life impacts may receive less urgency, even when they substantially affect everyday functioning.

Quality of life side-effects

Side-effects primarily impacting daily functioning and quality of life emerged as a consistent yet under-recognised theme, although predominantly qualitative, across the included studies. These included sedation, cognitive changes, weight gain and sexual side-effects (Day et al., 1998; Morrison et al., 2015a; Bennett et al., 1995; Quinn et al., 2012; Monteleone et al., 2019). These side-effects are not always immediately visible or quantifiable; they can substantially impact daily activity, social participation and engagement in treatment (Doane et al., 2019). Evidence suggests such impacts were less routinely assessed and more likely to depend on patient-initiated disclosure, particularly when clinicians were uncertain about management options or perceived them as less medically urgent (Morrison et al., 2015a; Quinn et al., 2012; Smith & Henderson, 2000).

Sedation, although frequently experienced and impacting concentration, motivation and social functioning (Reeve et al., 2025), was rarely described as a priority for systematic monitoring. Instead, sedation was frequently normalised as an expected or tolerable side-

effect (Morrison et al., 2015b; Potkin et al., 2013). There are potential consequences for normalising sedation, including impacting adherence to medication, recovery and general quality of life (Reeve et al., 2025). Similar patterns were evident for sexual side-effects, which were acknowledged but inconsistently integrated into routine practices (Quinn et al., 2012; Monteleone et al., 2019; Smith & Henderson, 2000; Morrison et al., 2015b). Confidence and discomfort of addressing sexual health, uncertainty about management options and ambiguity regarding professional responsibility contributed to inconstancies (Thana et al., 2022). The marginalisation of sexual dysfunction highlights how certain aspects of current practices can fall outside of traditional biomedical priorities. Assessment and management may then be neglected despite their importance to identity, personal relationships and medication adherence (Conneely et al., 2025; Herder et al., 2025).

Consequently, these findings observed across assessment and management practices illustrate an implicit hierarchy of adverse effects. Side-effects threaten acute safety or produce measurable biomedical change are prioritised, whereas those impacting lived experience and daily functioning are more likely to be normalised or accepted. Symptom control without assessment of everyday functioning may result in treatment is clinically effective but personally hindering recovery. Attention to these side-effects as well may support services to move toward a more person-centred and recovery-focused perspective, as well as symptom control (RCPsych, 2018).

Organisational and systemic influences

Organisational factors, including fragmented responsibility, staffing pressures and unclear shared-care arrangements, further limited consistent monitoring and management (Blagden et al., 2021; Doad et al., 2019; Nash et al., 2021; Patel et al., 2005). Across the included studies, these findings suggest variability reflects system-level limits rather than

individual clinician attitudes or knowledge. Clinicians may identify concerns but lack the authority or resources to be able to address them effectively.

Beyond organisational barriers, the findings suggest that multidisciplinary roles may also influence responsibility for side-effect monitoring and clinical decision-making. Across the included studies, monitoring was often undertaken by nurses, care coordinators, and other members of the multidisciplinary team, whereas responsibility for medication changes remained with prescribing clinicians. This distribution of responsibilities may contribute to uncertainty regarding accountability, particularly when concerns are identified but responsibility for subsequent action is unclear. Consequently, effective side-effect management may depend not only on routine monitoring but also on clear communication and well-defined responsibilities across multidisciplinary teams.

Patient involvement

Patient involvement in decision-making was also variable, and often contingent on context rather than embedded into routine clinical practice. Engagement occurred when patients actively raised concerns or when risks were perceived as immediate (Day et al., 1998; Morrison et al., 2015a; Potkin et al., 2013; Smith & Henderson, 2000). This suggests shared decision-making may be influenced by time pressures and considerations of risk. As a result, this may limit opportunities for collaborative exploration of the benefits of medication and equipping patients with the necessary information to make an informed choice (Kaar et al., 2019). It is known patient involvement can increase medication adherence and improve buy-in to treatment options (Torrecilla-Olavarrieta et al., 2021).

Limitations

This review integrates evidence across qualitative, quantitative and mixed methods designs, enabling the identification of findings across countries, professional groups and service contexts. However, several limitations warrant consideration in both primary studies and the synthesis approach.

Many included studies relied on self-reported practices or attitudes, and several quantitative studies did not fully report non-response bias, limiting certainty about representativeness. As a result, findings regarding frequency of monitoring should be interpreted as indicative of patterns rather than precise estimates of practice (Althubaiti, 2016). Social desirability and the well-documented gap between reported and completed practice may mean clinicians may overestimate the consistency or quality of monitoring (Stirratt et al., 2015). Observational or practice-based measures were comparatively uncommon, limiting insight into how assessment and management are seen in real-world clinical care.

The inclusion of studies with no restricted publication date may have contributed to variability in clinicians' reported assessment and management practices. Since 1995, prescribing guidance has increasingly emphasised routine physical health monitoring, cardiometabolic risk assessment, shared decision-making and clearer shared-care responsibilities (Ali et al., 2023; NICE, 2014). Consequently, differences between studies may partly reflect changes in healthcare policy and clinical practice over time rather than variation between clinicians or settings alone. However, including studies across this period ensured that potentially relevant evidence was not excluded and provided a comprehensive overview of clinicians' reported practices and perspectives across changing clinical contexts.

Methodological heterogeneity in study designs, measures and outcomes also limits opportunities for direct comparison or quantitative aggregation, resulting in reliance on

interpretive narrative synthesis. This approach allows for exploration of complexity and contexts; however, it involves research judgment in the identification and groping of themes (Popay et al., 2006). In addition, many of the included studies explored clinicians' reported practices and perspectives simultaneously. Therefore, attitudes, beliefs and reported behaviours were often closely intertwined within the primary literature, limiting the extent to which these constructs could be synthesised as entirely separate concepts. The findings should therefore be interpreted as reflecting both clinicians' reported practices and the perspectives that informed those practices.

Furthermore, many of the included studies originated from Western healthcare systems and were published in English, reflecting the eligibility criteria applied in this review. This may limit transferability to other cultural or service contexts. Finally, the review focused exclusively on clinician perspectives, consistent with the stated research question. Although patient or carer perspectives would provide important complementary insights, their inclusion would extend beyond the scope of the present review and address a different research focus. The absence of patient data should therefore be understood as a deliberate boundary of the review rather than an oversight.

Implications for future research

These findings suggest to improve side-effect assessment and management, clinical practice requires more than the introduction of monitoring tools and updated guidance. Future research should look to move beyond documenting rates of assessment to examining how organisational structures, professional roles and service constraints influence whether concerns translate to meaningful implementation. Particularly, process evaluations to

understand how monitoring practices can be embedded within routine care and linked to clear pathways for intervention would be beneficial.

This review highlights a persistent gap relating to side-effects primarily affect daily functional and quality of life. Side-effects such as sedation, cognitive changes and sexual dysfunction were acknowledged within the included studies, but inconsistently assessed or treated, often reframed as a tolerable "trade-off" for symptom control (Morrison et al., 2015b). Future research would benefit from prioritising systematic investigation of these functioning-related side-effects, including how they are recognised, discussed and managed in practice. As well as how their impact can be better incorporated into shared decision-making and treatment planning. Focusing on these areas may help shift the focus of side-effect management from biomedical monitoring alone toward outcomes reflect patients' lived experience and everyday functions. This aligns with more recent recommendations for clinical care to be more recovery-oriented and collaborative with patients (Subandi et al., 2023).

Conclusion

Overall, this review suggests side-effect burden is shaped not only by pharmacology but also by healthcare systems. What becomes identified, prioritised and addressed depends on organisational structures, professional norms and definitions of risk. Embedding systematic, accountable and patient-centred approaches to side-effect management may therefore be essential to increasing safety, effectiveness and quality of life for those receiving antipsychotic treatment.

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Chapter Three.

Bridging Chapter

Word count: 545

The systematic review examined clinicians' perspectives on the assessment and management of antipsychotic side effects in psychosis, synthesising findings from 29 studies. The review identified variability in how side effects from antipsychotic medications are recognised, monitored and addressed within mental health services. Cardiometabolic and neurological side effects were more consistently recognised and embedded within structured monitoring practices. In contrast, side effects associated with quality of life were less routinely explored in practice.

The findings highlighted the presence of an apparent hierarchy of harm. Side effects associated with measurable biomedical indicators or acute safety risks were prioritised, whereas more subjective side effects were more frequently dependent on patient disclosure and clinical judgement. Management approaches to side-effects were predominately reactive, with medication adjustments implemented in response to life-threatening or irreversible adverse reactions. Persistent but non-acute side-effects were often tolerated when psychiatric stability had been achieved. This pattern is both clinically and ethically understandable and aligns with prescribing guidelines for antipsychotic medications (NICE, 2014). However, side-effects that are not immediately life-threatening may have a long-term impact on people prescribed antipsychotic medications (Kane et al., 2013; Stroup & Gray, 2018; Reeve et al., 2025). Over time, these effects may accumulate morbidity and influence medication adherence, personal identity, and overall wellbeing (Conneely et al., 2025; Jia et al., 2022; Morant et al., 2018).

The review does not suggest replacing a hierarchy of harm but rather broadening the range of side effects systematically considered within routine clinical practice. Life-threatening risks undoubtedly warrant urgent prioritisation; however, chronic, subjective, and functionally impairing side effects also require proactive and structured attention.

Side effects that were not routinely explored included sexual dysfunction, cognitive changes, and sedation. Although referenced across the included studies, sedation was rarely the primary focus and emerged instead as a recurring yet under-examined concern. Sedation was framed as an expected or unavoidable consequence of effective antipsychotic treatment, particularly when weighed up against relapse prevention (Morrison et al., 2015b; Nash et al., 2021). Sedation has been referenced as 'excessive sleepiness', 'extended sleep duration' and 'daily sleepiness' (Reeve et al., 2021; Robbins et al., 2025).

Although sedation appears to be recognised in clinical practice, there is no shared operational definition, and sedation is rarely supported by structured assessment tools (Miller et al., 2004; Rehman et al., 2017; Reeve et al., 2021). As a result, identification often relies on patient disclosure or clinical judgement instead of route monitoring processes (Morrison et al., 2015a; Stomski et al., 2016).

While not typically life-threatening, sedation may have a significant impact on people's day to day functioning and overall recovery (Bressington & White, 2015; Reeve et al., 2021). Additionally, given the existing understanding of negative symptoms in psychosis and comorbid mood disorders, sedation may also be difficult to distinguish in the absence of a shared definition (Foussias & Remington, 2010; Siris, 2000). Sedation has been associated with reduced treatment adherence, suggesting that its longer-term effects may indirectly compromise the stability clinicians aim to maintain through effective treatment (Kane et al., 2013; Legge et al., 2016).

The following chapter presents a mixed-methods study designed to address this gap by examining clinicians' current conceptualisation, assessment practices, and management strategies relating to sedation in psychosis. In addition, the study explores clinicians' perceptions of the impact of sedation on individuals prescribed antipsychotic medication.

Chapter Four.

Empirical Paper: Clinician Perspectives on Assessment and Management of Sedation in Psychosis

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This paper has been developed for submission to Schizophrenia Research. Author guidelines are outlined (Appendix A). Word count limit: up to 5000 words (excluding tables, figures and references).

Declarations of interest: None.

Word Count (excluding abstract, tables and references): 5716

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Abstract

Background: Sedation is a frequently reported side-effect of antipsychotic medication and may compromise functioning and recovery in psychosis. Despite its clinical relevance, limited research has examined how sedation is conceptualised and managed within routine services.

Aims: To investigate how clinicians conceptualise, assess, and manage sedation in psychosis. To examine whether professional role, clinical setting or attitudes towards psychosis are associated with perceived impact.

Methods: A cross-sectional online survey was completed by 155 multidisciplinary clinicians across England. A purpose-developed questionnaire assessed definitions of sedation, assessment practices, management strategies, and perceived functional impact. Quantitative analyses were supplemented by brief content analysis of open-text responses. Clinician attitudes were measured using the Psychosis Attitudes Scale.

Results: Clinicians estimated that sedation affects approximately half of patients prescribed antipsychotics (M = 49.9%, SD = 23.9). Sedation was most commonly conceptualised in terms of drowsiness, daytime sleepiness, and cognitive slowing. Although 83.9% considered sedation a clinical problem, only 20.6% viewed it as well understood within services. Assessment approaches were variable and frequently informal. Management strategies were predominantly behavioural alongside medication adjustments. Sedation was perceived to have a moderate to high impact across functional domains. Perceptions were broadly consistent across professions and settings and were not associated with clinician attitudes.

Conclusions: Sedation is perceived as common, clinically consequential, and insufficiently supported in psychosis care. Development of structured monitoring and evaluation of targeted interventions may improve treatment tolerability and support sustained recovery.

Keywords: clinicians; antipsychotics; psychosis; sedation; assessment; management; attitudes

Introduction

Antipsychotic medication is a vital part of treatment for psychosis and is effective in reducing symptom severity and relapse risk. However, these benefits are often accompanied by distressing and sometimes serious side-effects that contribute to reduced adherence and poorer outcomes (Stroup & Gray, 2018). Among the most reported side-effects is sedation (Faulkner& Bee, 2017).

Sedation is widely recognised in clinical practice, particularly in the context of antipsychotic medication. However, it remains poorly defined and is rarely the primary focus of research (Miller, 2004; El Abdellati et al., 2020; Stroup & Gray, 2018; Waite et al., 2022; Reeve et al., 2025). Sedation has been described in terms of excessive daytime sleepiness, increased sleep duration, or feeling unrefreshed after sleep, but there is no agreed or standardised clinical definition (Miller, 2004; Reeve et al., 2025). This lack of conceptual clarity may contribute to inconsistent assessment and management across services.

Sedation may have important implications for recovery (Bressington & White, 2015). Factors such as physical wellbeing, social activity and employment improve recovery outcomes for people with psychosis (Frawley et al., 2023). Excessive sleepiness can reduce engagement in daily activities, impair cognitive and physical functioning, and interfere with participation in employment, social relationships, and psychological therapies (Reeve et al, 2021). Sedation is associated with poorer medication adherence, with side-effects frequently cited as a reason for discontinuation of antipsychotic treatment (Kane et al., 2013; Legge et al., 2016). Given the central role of sustained treatment in preventing relapse, these impacts may have significant negative consequences for long-term outcomes (Bjornestad et al., 2019).

Despite these potential effects, sedation has received relatively little attention compared with other antipsychotic side-effects. Clinical guidance and monitoring protocols tend to prioritise metabolic and cardiovascular risks, such as weight gain which are linked to reduced life expectancy (Arrang, 2007; Dayabandara et al., 2017; Heald, 2010; NICE, 2014), while sedation may be regarded as less clinically urgent. Consistent with this, patients report excessive sleepiness as highly burdensome, whereas clinicians may rank sedation as a lower priority relative to other side-effects (Llorca et al., 2017). Such differences in priorities may contribute to sedation being overlooked in routine care.

The absence of clear guidance or validated assessment tools may further compound this problem (Rehman et al., 2017). Current clinical guidance provides limited direction regarding the structured assessment of sedation specifically (NICE, 2014; Taylor et al., 2025). Without shared definitions or structured approaches, clinicians may vary in how they recognise, measure, or address sedation. Evidence from related areas supports this possibility: surveys of sleep problems in psychosis have identified lack of knowledge and limited confidence in available interventions as barriers to assessment and treatment (Barrett et al., 2020). Similar challenges may apply to sedation, but this has not been systematically examined.

Little is known about how sedation is currently conceptualised and managed in everyday clinical practice. It remains unclear how clinicians define sedation, whether and how it is routinely assessed, what strategies are used to address it, and the extent to which it is perceived to affect recovery. Practices may differ across professional groups and service settings, reflecting variations in training, roles, and treatment priorities.

The present study aimed to investigate clinicians' perspectives on the assessment and management of antipsychotic-related sedation within NHS secondary mental health services.

Using a cross-sectional survey design, we explored how clinicians define sedation, how it is assessed and managed in practice, perceived impacts on engagement and recovery, and barriers to intervention. Given the absence of an established, psychometrically validated measure assessing clinicians' conceptualisation, assessment and management of sedation, an exploratory study-specific questionnaire was developed to address this gap. We examined whether perceptions differ by professional group, clinical setting, and attitudes towards psychosis. By clarifying current practice and highlighting areas of good practice, this study aims to inform future guidance and service development to better support recovery and quality of life for people experiencing psychosis.

Research Questions

1. How do clinicians define sedation in psychosis?
2. How is sedation assessed in clinical settings?
3. How do clinicians support people with psychosis to manage sedation?
4. What impact does sedation have on patients from a clinician's perspective?
5. Does professional group influence clinical perceptions of sedation in psychosis?
6. Does clinical setting influence clinical perceptions of sedation in psychosis?
7. How do attitudes towards psychosis interact with perceptions of the impact of sedation amongst clinicians?

Methods

Design

This study employed an anonymous cross-sectional survey design to explore clinicians' attitudes, assessment practices and management strategies regarding antipsychotic

medication-related sedation, and perspectives on the impact of sedation on patients. Quantitative survey responses were complemented by content analysis of open-text items.

Participants and recruitment

Participants were clinicians working in NHS secondary mental health services supporting individuals with psychosis, including early intervention, community mental health, crisis, inpatient and forensic services. Eligible professions included psychiatrists, mental health nurses, occupational therapists, social workers, clinical and counselling psychologists, cognitive-behavioural therapists, assistant psychologists, support time and recovery workers, and peer support workers. Participants were required to have at least six months' experience working with people with psychosis.

Recruitment was conducted through emails circulated to NHS services and newsletters, alongside advertisements posted on professional social media platforms (e.g. LinkedIn) (Appendix D). Participation was voluntary and anonymous. After reviewing an online participant information sheet (Appendix E), participants provided informed consent (Appendix F) before accessing the survey. Participants were presented with a final debrief sheet before exiting the online survey (Appendix I). An optional prize draw was offered, with contact details collected separately from survey responses to maintain anonymity.

An initial power analysis indicated a minimum of 100 participants would provide adequate power to detect medium between-group effects in the primary comparative analysis; the achieved sample exceeded this threshold (n= 155). Power calculations are reported in Appendix C.

Measures

Sedation Survey

As no validated measure existed to assess clinicians' conceptualisation, assessment and management of antipsychotic related sedation in psychosis, a study-specific 43-item online survey was developed (see Appendix G).

Survey Development

Survey development followed a multistage process to enhance content validity and clinical relevance. A focused review of literature relating to antipsychotic induced sedation, its functional impact, and approaches to side-effect monitoring informed the identification of key domains. A focus group was conducted with six experts by experience to explore experiences of sedation, assessment and management. Key themes from this discussion informed item generation, particularly in relation to functional impact domains and patient-centred language.

Draft items were reviewed by clinicians working across secondary psychosis services to ensure clarity, feasibility, and relevance to routine practice. Items were refined following this consultation. The survey was piloted with a small group of clinicians (n = 4) to assess clarity, acceptability, and estimated completion time (10–25 minutes), and minor amendments were made before dissemination. As the questionnaire was developed as an exploratory instrument comprising individual items assessing distinct aspects of clinicians' conceptualisation, assessment practices, management strategies, and perceived impacts of sedation, it was not intended to measure a single underlying construct. Formal psychometric testing and internal consistency analyses were not considered appropriate. Instead, the questionnaire was developed through literature review, expert-by-experience input, clinician review, and piloting to maximise content relevance, clarity and feasibility.

Survey Structure

The survey comprised closed response items (yes/no, multiple-response tick boxes, percentage estimates, and Likert scales) alongside 12 open-text items.

The survey assessed:

- Clinician demographics and professional characteristics (e.g., profession, service type, region, prescribing role, years of experience).
- Conceptualisation and definition of sedation, including endorsement of potential sedation-related presentations
- Current assessment practices, including whether sedation is routinely assessed, frequency and method of assessment, and awareness of service guidance.
- Management strategies, including recommended pharmacological and psychosocial interventions.
- Estimated prevalence and medication-related impact, including percentage estimates of patients experiencing sedation and discontinuing medication.
- Perceived functional and recovery-related impact, with clinicians rating the extent to which sedation affects domains on a 5-point ordinal scale (No impact to Very significant impact).

Predefined response lists (e.g., indicators of sedation; management strategies) were derived from literature review, clinical expertise, and focus group input, with free-text options included to capture additional responses not represented in the predefined categories.

Operationalisation

To ensure transparency and traceability between survey items and reported variables:

- Demographic variables were treated as nominal categorical variables.
- Likert-scale responses were analysed as ordinal variables.
- Percentage estimates (e.g., proportion of patients experiencing sedation) were analysed as continuous variables.
- Multiple-response items (e.g., sedation indicators; management strategies) were coded dichotomously (endorsed/not endorsed).
- Open-text responses were analysed using content analysis

Psychosis Attitudes Scale

Clinician attitudes towards psychosis were assessed using the Psychosis Attitudes Scale (Kopelovich et al., 2022), a validated 19-item self-report questionnaire rated on a 7-point Likert scale (see Appendix H). Higher scores indicate more recovery-oriented and confident attitudes.

Procedure

The survey was administered online using Jisc and took approximately 15-20 minutes to complete. Responses were anonymised at the point of collection and stored securely in accordance with data protection regulations.

Data Analysis

Analyses were conducted in Jamovi**,** with significance set at $p < 0.05$. Quantitative and content-based analyses were structured according to the study research questions as follows.

RQ 1: How do clinicians define sedation in psychosis?

RQ 2: How is sedation assessed in clinical settings?

RQ 3: How do clinicians support people with psychosis to manage sedation?

RQ 4: What impact does sedation have on patients from a clinician's perspective?

Descriptive statistics were used to characterise the sample and summarise clinicians' responses to the survey items addressing research questions (RQ)1 to 4. Frequencies and percentages were calculated for categorical variables, including clinician demographics, prescribing practices, assessment approaches and management strategies. Means and Standard deviations were calculated for Likert scale items assessing perceived impacts of sedation on patients' functioning, engagement and recovery.

Open-text responses were analysed using directed content analysis. Directed content analysis was selected because existing literature on antipsychotic-related sedation, together with the predefined study aims and research questions, provided an initial framework to guide analysis (Hsieh & Shannon, 2005). The open-ended survey questions focused on predefined aspects of clinicians' practice, including the conceptualisation of sedation, responsibility for assessment and management strategies. Initial coding categories were informed by these areas of interest and the existing literature, while remaining open to the identification of additional categories where participants' responses extended beyond the predefined framework (Assarroudi et al., 2018). Similar mixed-methods surveys of mental health clinicians have used predefined coding frameworks to analyse open-ended survey responses alongside quantitative findings (Johnson et al., 2021), and clinician surveys exploring assessment and management practices in psychosis have similarly combined quantitative and qualitative data to provide greater insight into clinicians' perspectives (Rehman et al., 2016). The final coding framework informed interpretation by allowing participants' responses to be

considered in relation to existing evidence while also identifying areas that extended beyond previous literature. Qualitative findings were subsequently used to contextualise and elaborate on the quantitative survey findings.

RQ 5: Does professional group influence clinical perceptions of sedation in psychosis?

RQ 6: Does clinical setting influence clinical perceptions of sedation in psychosis?

To examine whether perceptions differed across professional groups and clinical settings (RQ 5-6), group differences for continuous outcomes were examined using one-way ANOVA. Associations between professional group and categorical variables were analysed using chi-square tests of independence.

RQ 7: How do attitudes towards psychosis interact with perceptions of the impact of sedation amongst clinicians?

To explore associations between clinician attitudes and perceptions of sedation impact (*RQ 7*), linear regression analyses were performed using psychosis attitude scale scores as predictors and aggregated sedation impact ratings as dependent variables.

Ethical Considerations

Ethical approval was obtained from the University of East Anglia (FMH SREC Number: ETH2425-0111) and the Health Research Authority (IRAS ID Number: 348648) to enable NHS-wide recruitment. No personally identifiable information was collected. Anonymity was maintained throughout, and participants were informed that data could not be withdrawn after submission. A debrief page included signposting for support if participation caused distress.

Results

Participant characteristics

A total of 156 responses were received. One response failed a screening check and was excluded, resulting in a final sample of 155 clinicians for analysis. Most participants were nurses (*n* = 66) and psychiatrists (*n* = 25), primarily working in community services (*n* = 107). Mean experience working with psychosis was 11.6 years (SD = 9.19). Participant characteristics are presented in Table 1.

Table 1

Participant characteristics (n = 155)

Characteristic	N (%) or M (SD)
Professional group	
Mental health nurse	66 (42.6%)
Psychology	37 (23.9%)
Psychiatrist	25 (16.1%)
Occupational therapist/ Social Worker	13 (8.4%)
Support workers	14 (9.0%)
Service Type	
Community	107 (69.0%)
Inpatient	44 (28.4%)
Other	4 (2.6%)
Geographical area	
East of England	51 (32.9%)

South East	17 (11.0%)
London	4 (2.6%)
North West	16 (10.3%)
Midlands	25 (16.1%)
North East and Yorkshire	29 (18.7%)
South West	13 (8.4%)
Prescriber Role	
Yes	37 (23.9%)
No	118 (76.1%)
Years' experience	11.6 (SD=9.19)
Approx. percentage of caseload on antipsychotics	75.3 (SD=21.6)
Approx. percentage of caseload on other medication in addition to antipsychotics	70.2 (SD=22.0)

Clinician definitions, assessment and management of sedation

RQ1: How do clinicians define sedation in psychosis?

The most frequently endorsed descriptions were drowsiness (96.1%), feeling like a 'zombie' (92.9%), daytime sleepiness (90.3%) and slowed reaction time (90.3%). Cognitive symptoms were frequently selected, including brain fog (85.2%) and difficulty concentrating (82.6%).

Fewer clinicians described sedation in terms of calming or soothing, with a low amount of 'yes' responses for relaxed (20.6%), soothed (17.4%) or calm (27.7%). Irritability (30.3%) and pacification (40.6%) were less frequently associated with sedation.

Most clinicians considered excessive sleeping to represent a clinical problem (83.9%), although a minority agreed sedation is currently a well-understood construct within services (20.6%). Frequencies for clinician-endorsed definitions and perceptions are presented in Table 2.

Clinician's definition of sedation

Open text descriptions of sedation were analysed using content analysis (N = 116). Many clinicians described sedation primarily in terms of sleepiness or fatigue (n = 75, 64.66%). Cognitive changes, such as poor concentration, grogginess and slowed thinking, were noted by around one-fifth of respondents (n = 25, 21.55%). Approximately one-third emphasised functional impairment, particularly reduced ability to complete daily activities or engage socially (n = 38, 32.76%). Sedation was framed as a side-effect of antipsychotic medication by 38.79% of clinicians (n = 45), while a smaller proportion highlighted difficulties distinguishing sedation from negative symptoms, depression, or poor sleep (n = 14, 12.07%). Around one-fifth described intentional or therapeutic sedation used in acute settings to manage agitation or risk (n = 25, 21.55%).

RQ2: How is sedation assessed in clinical settings?

Sedation was most commonly assessed through informal discussion, with 125 clinicians (80.6%) reporting they discuss sedation with patients informally. Over half of clinicians (58.7%) indicated they were formally required to assess sedation as part of their role. However, awareness of specific service or national guidelines for assessing sedation was limited, with 18 (19.8%) clinicians reporting knowledge of relevant guidance. Although over half reported being formally required to assess sedation, informal discussion was more commonly described than structured assessment approaches.

Clinicians who reported being formally required to assess sedation (n = 91), the most frequently mentioned structured tool in open-text responses was the Glasgow Antipsychotic Side-Effect Scale (GASS), mentioned by 19.78% (n = 18).

Responsibility for assessing sedation

Among clinicians who provided additional comments regarding responsibility for assessing sedation, a common theme was assessment was viewed as a shared or multidisciplinary responsibility. Many respondents suggested any staff member involved in regular patient contact should monitor and discuss sedation. However, several clinicians identified medication prescribers, particularly psychiatrists or medical staff, as holding primary or ultimate responsibility for reviewing side-effects. A small number expressed uncertainty or lack of clarity regarding who should lead assessment processes.

This pattern suggests a perception of collective monitoring within teams, but with medical oversight positioned as central to formal decision-making. Illustrative responses included*: "EVERYONE,"* and *"…as nurses we will discuss this along with broader themes, the main responsibility appears to fall to the ward medics."*

RQ3: How do clinicians support people with psychosis to manage sedation?

Clinicians most commonly recommended behavioural and lifestyle-based strategies to manage sedation. The most frequently selected approaches were sleep hygiene (91.6%) and activity scheduling (74.8%), followed by healthy living advice (65.2%) and psychoeducation (60.6%).

Medication-related strategies were frequently reported, with medication changes selected by 128 clinicians (82.6%); additional pharmacological augmentation was rarely

selected (6.5%). In contrast, fewer clinicians recommended more intensive therapeutic interventions such as individual psychological therapy (27.1%) and family intervention (12.3%). Other strategies such as reassurance sedation is a normal side-effect (46.7%), no daytime naps (38.7%) and relapse prevention work (30.3%) were reported. Frequencies for all reported management strategies are presented in Table 2.

Strategies for managing sedation

Open text responses described additional strategies either not offered by services or described challenges faced in managing sedation were analysed using content analysis. A prominent theme related to gaps in service provision such as limited access to specialist interventions (e.g., CBT for insomnia), meaningful daytime activities, or broader treatment options. Some clinicians highlighted the potential value of enhanced education and monitoring, including structured side-effect assessment and psychoeducation for patients. Illustrative responses included: *"Stop seeing it as an unavoidable outcome of psychosis… antipsychotics are necessary, therefore sedation is"* and *"Better access to proven therapies that work, not just 'sleep hygiene"*

Table 2

Clinician survey responses

Survey domain	Results
Definitions of sedation	"Yes" response, N (%)
Tiredness	120 (77.4%)
Sleepy during the day	140 (90.3%)
Relaxed	32 (20.6%)
Calm	43 (27.7%)
Drowsy	149 (96.1%)

Trouble concentrating	128 (82.6%)
Irritability	47 (30.3%)
Slowed reaction time	140 (90.3%)
Brain fog	132 (85.2%)
Challenges with decision-making	71 (45.8%)
Feeling like a 'zombie'	144 (92.9%)
Soothed	27 (17.4%)
Pacified	63 (40.6%)
Perceptions of sedation	"Yes" response, N (%)
Excessive sleeping considered a clinical problem	130 (83.9%)
Sedation viewed as well understood	32 (20.6%)
Assessment practices	"Yes" response, N (%)
Routinely required to assess sedation	91 (58.7%)
Informally discuss sedation	125 (80.6%)
Aware of service guidelines	18 (19.8%)
Perception of management of sedation*	Mean (SD)
To what extent is sedation well assessed	2.81 (0.87)
To what extent is it possible to improve sedation	3.88 (0.69)
To what extent is sedation well managed	2.65 (0.83)
Clinician estimated prevalence (%)	Mean (SD)
Approx. percentage of patients experiencing sedation	49.9 (23.9)
Approx. percentage of patients attempt to stop taking medication due to sedation?	36.6 (22.6)
Approx. percentage of patients attempt to stop taking medication due to other side-effects	43.4 (20.4)
Management Strategies	"Yes" response, N (%)
Medication changes	128 (82.6%)
Individual psychological therapy (e.g. CBTp)	42 (27.1%)
Wait and see	40 (25.8%)
Sleep hygiene	142 (91.6%)
Activity scheduling	116 (74.8%)
Reassurance it is a normal side-effect	77 (46.7%)
Family intervention (FIP)	19 (12.3%)

Additional medication	10 (6.5%)
Caffeine	16 (10.3%)
Behavioural activation	76 (49.0%)
No naps during the day	60 (38.7%)
Psychoeducation	94 (60.6%)
Healthy living advice	101 (65.2%)
To nap during the day	15 (9.7%)
Relapse prevention/early warning signs work	47 (30.3%)
Peer support	36 (23.2%)
Other	16 (10.3%)

Note. *"Yes" responses reflect the number and percentage of clinicians endorsing each item (multiple responses permitted where applicable). *Likert-scale items were rated on a 5-point scale ranging from 1 (Strongly disagree) to 5 (Strongly agree), with higher scores indicating stronger agreement. Percentage estimates reflect clinician-reported approximations (0–100%).*

Clinicians estimated approximately half of patients experience sedation (M = 49.9%, SD = 23.9), and over one-third attempt to discontinue medication due to sedation (M = 36.6%, SD = 22.6). Despite this perceived prevalence and impact, 20.6% viewed sedation as well understood within services. Mean ratings further indicated clinicians tended to disagree sedation is well assessed (M = 2.81, SD = 0.87) or well managed (M = 2.65, SD = 0.83), on a 5-point Likert scale where 3 represented a neutral response. Most agreed it is possible to improve sedation (M = 3.88, SD = 0.69).

Perceived impact of sedation on patients

RQ4: What impact does sedation have on patients from a clinician's perspective?

Clinicians rated impact on a 5-point scale ranging from 1 (*No impact*) to 5 (*Very significant impact*), with 3 representing *Moderate impact*. Mean ratings exceeded the

midpoint across all domains (Table 3), indicating consistently moderate to significant perceived impact.

The highest impact ratings were observed for employment (M = 4.24, SD = 0.76) and goal setting/motivation for recovery (M = 4.14, SD = 0.82), suggesting sedation is viewed as particularly consequential for vocational functioning and recovery processes. High impact was reported for physical health self-care, community participation, and mood.

Interpersonal and recovery-related domains (e.g., family life, friendships, hopefulness, views of recovery) were similarly rated above the moderate threshold, as were medication adherence and engagement with services. The lowest impact rating was observed for maintaining a safe home environment (M = 3.43, SD = 0.96), although this remained above moderate impact.

Table 3

Clinician ratings of the perceived impact of sedation on patient outcomes

Impact of sedation	**N**	**Mean**	**SD**
Attending appointments and engaging with support team	154	3.46	0.90
Accessing employment and/or engaging in paid or voluntary employment	148	4.24	0.76
Accessing wider community such as social groups	153	3.97	0.81
Family life	155	3.78	0.83
Mood	155	3.93	0.78
Medication adherence	155	3.82	0.92
Maintaining a safe home environment	150	3.43	0.96
Friendships and romantic relationships	152	3.82	0.87
Goal setting and motivation for recovery	154	4.14	0.82

Patient views on the future in general	154	3.82	0.87
Hopefulness	154	3.80	0.87
Patient view on recovery	155	3.80	0.82
Looking after physical health (e.g., attending physical health appointments, nutrition and exercise)	154	3.98	0.82
Stigma around patient's own mental health diagnosis	153	3.56	0.97
General confidence and self-esteem	154	3.92	0.84

Note. *Items were rated on a 5-point Likert scale ranging from 1 (No impact) to 5 (Very significant impact). "Not applicable to service" responses were coded as missing.*

Professional groups

RQ5: Does professional group influence clinical perceptions of sedation in psychosis?

Due to unequal group sizes, Welch's ANOVA was conducted to examine whether the overall perceived impact of sedation differed by professional group. There were no significant differences between psychologists, mental health nurses, and psychiatrists, $F(2, 59.0) = 1.04$, $p = .360$.

There was no significant association between professional group and perceptions sedation is well understood, χ^2 (4, N = 128) = 8.29, p = .081. Although psychologists were proportionally more likely to report sedation was not well understood (81.1%) compared to mental health nurses (54.5%) and psychiatrists (72.0%), these differences did not reach statistical significance.

Professional group was significantly associated with perceptions sedation is well managed, χ^2 (8, N = 128) = 27.5, p < .001. Psychologists were more likely to report sedation is poorly managed, with 78.4% endorsing disagreement or strong disagreement. In contrast, psychiatrists were more likely to provide neutral or positive ratings (52.0%), with a smaller

proportion endorsing agreement (24.0%). Mental health nurses demonstrated a more mixed distribution of responses, with the largest proportion endorsing neutral ratings (45.5%).

A significant association was observed between professional group and perceptions of how well sedation is assessed in practice, χ^2 (6, N = 128) = 26.6, p < .001. Psychologists were more likely to report sedation is poorly assessed, with 64.8% endorsing disagreement or strong disagreement. Psychiatrists were more likely to report neutral views, with 60.0% selecting neutral Mental health nurses showed a mixed distribution, with neutral responses most common (40.0%), followed by agreement (32.3%) and disagreement (26.2%).

Professional background was not associated with the perceived overall impact of sedation; significant differences were observed in perceptions of how well sedation is assessed and managed in practice.

Clinical setting

RQ6: Does clinical setting influence clinical perceptions of sedation in psychosis?

An independent samples *t*-test examined whether overall perceived impact of sedation differed between clinicians working in community and inpatient settings. There was no significant difference in impact ratings between community (M = 3.85, SD = 0.62) and inpatient clinicians (M = 3.78, SD = 0.66), t (149) = 0.63, p = .530, Cohen's d = 0.11.

Chi-square analyses further indicated no significant associations between clinical setting and perceptions of sedation being well understood, χ^2 (2, N = 151) = 1.04, p = .593; well assessed, χ^2 (3, N = 150) = 1.32, p = .725; or well managed, χ^2 (4, N = 151) = 3.13, p = .537. Clinical setting was not significantly associated with perceived impact or service-level evaluations of sedation.

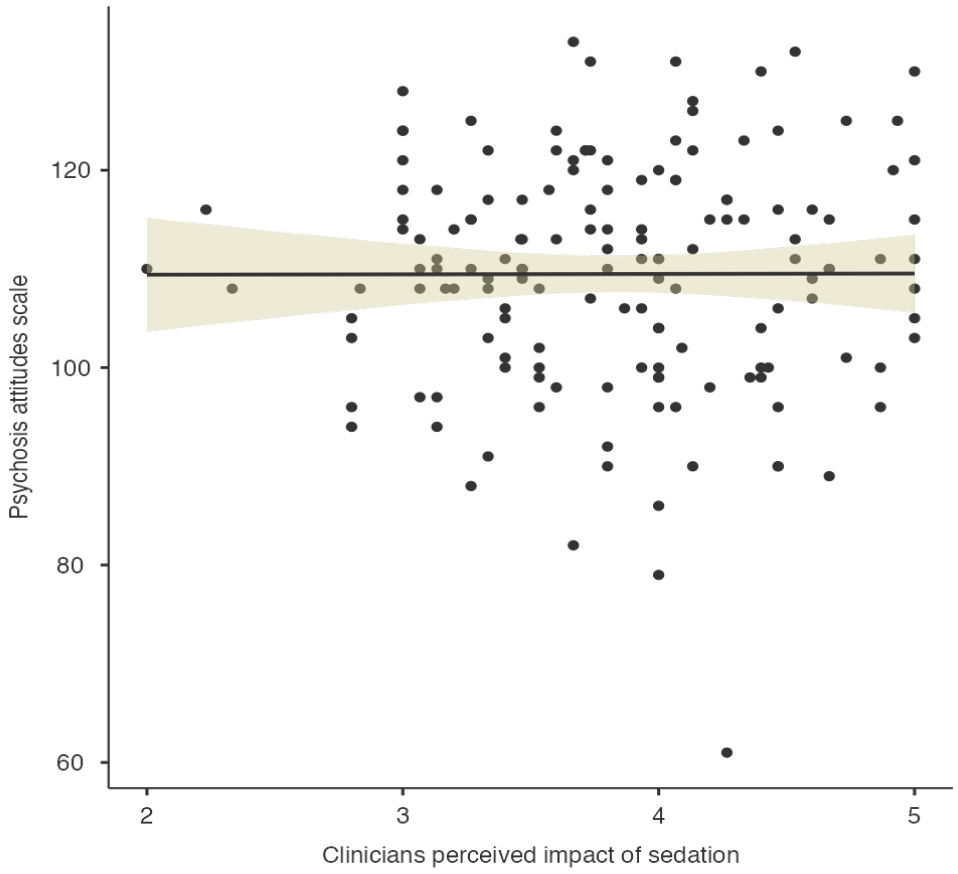
Psychosis Attitude Scale

RQ 7: How do attitudes towards psychosis interact with perceptions of the impact of sedation amongst clinicians?

A simple linear regression was conducted to examine whether attitudes towards psychosis predicted perceived overall impact of sedation. The model was not significant, $F(1, 153) = 0.001$, $p = .979$, $R^2 = .000$, indicating attitudes did not explain variance in perceived impact. Psychosis Attitudes Scale scores were not significantly associated with impact ratings ($\beta = .002$, $p = .979$), and the 95% confidence interval crossed zero (−0.009 to 0.009). A visual representation has been shown in Figure 1.

Figure 1

Association between clinician attitudes and perceived impact of sedation



Discussion

This study examined how clinicians conceptualise, assess and manage sedation, alongside perceived impacts on patients and whether perceptions differed according to professional group, clinical setting, or attitudes towards psychosis. In a multidisciplinary sample of 155 clinicians, participants demonstrated a relatively consistent understanding of sedation; however, assessment practices and management approaches varied considerably. Sedation was perceived to affect a substantial proportion of people prescribed antipsychotic medication and to have a moderate to high impact across multiple domains of functioning and recovery. Despite this, relatively few clinicians considered sedation to be well understood within services, and no significant differences in overall perceived impact were identified according to professional group, clinical setting, or attitudes towards psychosis.

Conceptualisation and definitions of sedation

Clinicians demonstrated a relatively consistent conceptualisation of sedation, primarily emphasising sleepiness, cognitive slowing and functional impairment. Sedation was commonly framed as an adverse effect of antipsychotic medication, although a minority highlighted diagnostic overlap with negative symptoms, depression and sleep disturbance. This difficulty distinguishing sedation from co-occurring or symptom-related processes reflects recognised challenges in differentiating overlapping clinical presentations (Mosolov & Yaltonskaya, 2022; Reeve et al., 2021; Siris, 2000).

These findings suggest clinicians primarily describe sedation in terms of its observable symptoms and functional consequences. This view reflects patient-centred approaches aiming to prioritise how symptoms and side-effects are experienced in everyday functioning and wellbeing, rather than limiting assessment to biological and pharmacological only (Pillinger et al., 2007; Reeve et al., 2025; Tandon et al., 2020). Symptom-focused understanding may be helpful clinically, although the emphasis on sleepiness and tiredness may risk overlooking wider emotional or social consequences of sedation. Quality of life studies suggest sedation can meaningfully affect daily functioning and medication adherence (Miller, 2004; Reeve et al., 2025). How sedation is defined is important, as it can directly inform how sedation is assessed and managed in everyday clinical practice.

Assessment practices and responsibility

Despite growing increasing recognition of sedation as a significant antipsychotic side-effect within recent literature (Reeve et al., 2021; Robbins et al., 2025), assessment practices appeared variable. While over half of clinicians reported being formally required to assess sedation, informal discussion was more commonly described than structured assessment.

Where structured tools were referenced, these tended to involve general side-effect measures such as the GASS (Waddell & Taylor, 2008). As sedation is captured within such measures as a single item, it will not fully capture the cognitive and functional dimensions of sedation (Stomski et al., 2016). Low awareness of specific guidelines further suggests sedation assessment is not consistently embedded within formal service frameworks. There are clear gaps in assessment guidelines, specifically for sedation (Miller, 2004; Reeve et al., 2025).

Open-text responses further indicated responsibility for assessment was often viewed as shared across the multidisciplinary team, although some clinicians identified prescribers or psychiatrists as responsible for monitoring side-effects. However, in routine practice, contact with prescribers may occur less frequently than contact with other members of the MDT (Cooper et al., 2019), potentially limiting opportunities for systematic identification of sedation. A small number reported uncertainty regarding who should assess sedation.

These findings suggest although sedation is recognised as important, it may not be consistently embedded within routine assessment processes. The absence of clear or formalised procedures may contribute to variability in how sedation is identified and addressed in practice. This pattern aligns with previous research identifying challenges in supporting patients to recognise, understand, and manage antipsychotic side-effects (Nomura et al., 2025; Read & Williams, 2019). Time constraints, limited use of structured assessment tools, and competing clinical priorities have been highlighted as barriers to systematic side-effect monitoring (Ali et al., 2020; Rehman et al., 2017; Stomski et al., 2016). This suggests variability in sedation assessment may reflect broader structural and organisational constraints within psychosis services rather than a lack of clinical awareness.

Management strategies and perceived gaps

Management approaches reported by clinicians were largely pragmatic and behaviourally focused. Sleep hygiene, activity scheduling, psychoeducation and lifestyle advice were most frequently selected alongside medication changes. Notably, sleep hygiene was the most frequently endorsed strategy. However, sleep hygiene alone is not considered an evidence-based standalone intervention for sleep disturbance and is often used as a control condition in cognitive behavioural therapy for insomnia (CBT-I) research (Trauer et al., 2015). Importantly, there is currently limited direct evidence CBT-I or other structured psychological interventions are effective specifically for antipsychotic related sedation (Reeve et al., 2025; Reeve at al., 2021). This raises questions about whether commonly recommended strategies are sufficient to meaningfully reduce sedation, or whether they reflect limited access to more targeted interventions. Fewer clinicians reported access to specialist or structured interventions, including CBT-I, individual psychological therapy or more formalised approaches to side-effect management. Open-text responses highlighted perceived gaps in provision, such as limited availability of targeted therapies, structured programmes or meaningful daytime activities. Several clinicians emphasised the importance of acknowledging sedation is a legitimate concern rather than accepting it as an inevitable consequence of antipsychotic medications.

These findings suggest while clinicians actively attempt to manage sedation, the range of available interventions may be limited, and service-level constraints may restrict more specialised and individualised approaches. This finding aligns with the understanding there is variability in how side-effects are managed across different services (Cooper et al., 2019; Faulkner & Bee, 2017; NICE, 2026).

Perceived impact of sedation

Clinicians rated sedation as having moderate to high impact across multiple domains of patients' lives, including employment, motivation, mood, physical health and engagement with recovery. These results indicate sedation is perceived not only as a side-effect but as a factor with meaningful consequences for daily functioning and quality of life. Patient perceptions suggest sedation has a significant impact on quality of life and recovery (Crutzen et al., 2025; Reeve et al., 2025). Although this study sampled clinicians rather than service users, the high perceived impact of sedation across functional domains is consistent with findings from patient-reported studies (Chakrabarti, 2025; Reeve et al., 2025). This suggests clinician and patient perspectives on the functional burden of sedation may be more aligned than previously assumed, although direct comparison was not examined in the present study.

Clinicians estimated sedation affects approximately half of patients prescribed antipsychotics and over one-third attempt to discontinue medication due to sedation. Impact was rated as moderate to severe across all functional domains, with particularly high perceived impact on employment, motivation for recovery, and physical health engagement. Although these figures reflect clinician perceptions rather than objective rates, the scale and consistency of reported impact are important. Despite this perceived prevalence and impact, sedation has rarely been examined as a primary focus of research. No research to date has directly examined its functional and recovery-related consequences, with it typically included within broader side-effect reporting (DiBonaventura et al., 2012; Leonhardt et al., 2020; Reeve et al., 2025).

Professional, setting, and attitudinal differences

Different professional groups were consistent in reporting sedation as being prevalent and impactful. Perceptions of sedation were largely consistent across professional groups and clinical settings. No significant differences were observed in overall perceived impact

between community and inpatient settings, and attitudes towards psychosis were not associated with impact perceptions. Although overall perceived impact of sedation did not differ between professional groups, differences emerged in views regarding how well sedation is assessed and managed. Psychologists were more likely to report sedation is poorly assessed and poorly managed, whereas psychiatrists were more likely to endorse neutral or moderately positive ratings. Mental health nurses demonstrated a more mixed pattern of responses. These differences may reflect variation in professional roles and expectations within multidisciplinary teams, rather than differences in clinical concern regarding sedation itself.

These findings suggest concerns about sedation are broadly shared rather than specific to professional roles or contexts. These findings suggest concerns regarding sedation are broadly shared across professional roles and service contexts, indicating it may represent a general clinical issue rather than one confined to specific settings or disciplines. This finding demonstrates the importance of acknowledging and clearly defining sedation in future clinical guidelines, as it appears it is perceived to be impactful across all settings. Therefore, further exploration of sedation assessment and management strategies is warranted.

Clinical implications

Several practical implications arise. Routine structured monitoring may improve consistent identification of sedation. Clearer role definition within multidisciplinary teams may reduce uncertainty regarding responsibility for assessment and management. Expanding access to behavioural and psychological approaches alongside medication review could enhance treatment tolerability and recovery-oriented care. Explicit acknowledgement of sedation within shared decision-making conversations may support adherence and patient engagement. To support implementation in routine practice, structured monitoring could be

integrated within electronic healthcare record systems through standardised assessment prompts or reminders. Such systems may help improve the consistency of sedation assessment while supporting documentation and communication across multidisciplinary teams. In addition, clearly defined escalation pathways outlining responsibility for responding to identified sedation concerns may help ensure that assessment findings lead to appropriate clinical action rather than remaining solely as documented observations.

From a research perspective, the variability observed highlights the need for brief, pragmatic assessment tools capture subjective and functional impact while remaining feasible for routine practice. Future work should focus on creating and validating tools can be embedded within routine care, capturing both subjective experience and functional impact while remaining feasible for everyday use and avoiding additional administrative burden or superficial 'tick-box' processes. Research should incorporate patient perspectives and examine how sedation can be more clearly differentiated from overlapping presentations to support more accurate identification and management. Research examining how sedation monitoring can be effectively embedded within routine practice.

Strengths and limitations

This study has several strengths, including a relatively large multidisciplinary sample from across multiple regions of England, enhancing the breadth of perspectives captured. The integration of quantitative and qualitative data provided a richer understanding of clinical perspectives.

Several limitations should be considered. The study utilised a survey developed for this research, reflecting the absence of established measures assessing clinician conceptualisation and management of sedation. Although the measure was not formally

psychometrically validated, development incorporated a literature review, expert by experience input, clinician review, and piloting to enhance content and face validity. Given the exploratory nature of the questionnaire and its focus on individual items assessing distinct aspects of clinical practice, attitudes and perceived barriers, formal psychometric evaluation was not undertaken. Consequently, the reliability and broader measurement properties of the questionnaire cannot be fully established, and findings should be interpreted as exploratory and descriptive of this sample.

Respondents may represent clinicians with a particular interest in the topic, introducing potential response bias. Findings are based on clinician self-report and may not reflect actual practice or service user experiences. The cross-sectional design limits causal interpretation, and some measures relied on brief or single-item questions. Free-text responses were often short, restricting the depth of analysis.

Additionally, although psychiatrists comprised a smaller proportion of the sample than other professional groups, this should be considered when interpreting findings relating to prescribing responsibility, accountability and ownership of side-effect monitoring. However, the overall professional composition broadly reflects the multidisciplinary nature of NHS secondary mental health services, where nurses typically represent a larger proportion of the workforce than psychiatrists. While findings relating specifically to prescribing responsibility should be interpreted with appropriate caution, the study provides valuable insight into how responsibility for sedation assessment and management is perceived across the wider multidisciplinary team.

Conclusion

Clinicians estimated sedation affects approximately half of patients prescribed antipsychotic medication and has substantial functional consequences across employment, motivation, physical health, and areas associated with quality of life. Despite this, a minority viewed sedation as well understood or consistently managed within services. These findings position sedation as a common and clinically consequential but inconsistently addressed aspect of psychosis care. Greater routine monitoring, clearer responsibility, and expanded intervention options may help address the functional consequences of sedation and support more recovery-oriented care.

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Chapter Five.

Discussion and Critical Evaluation

Word count: 2065

This chapter further examines the presented findings of both the systematic review and empirical paper, indicating the clinical implications and contributions to the field. Additionally, this chapter aims to evaluate the strengths and limitations of the research and provide the authors reflections of the portfolio.

Overview of Findings

This thesis portfolio examined clinicians' perspectives on the assessment and management of antipsychotic side-effects, with a specific focus on sedation within services working with people experiencing symptoms of psychosis. Across both papers, sedation was identified as clinically recognised and impactful for patients; however, it lacks a clear conceptual definition and is inconsistently addressed in clinical practice.

Systematic review

The systematic review synthesised 29 studies exploring clinician' attitudes, beliefs and practices regarding antipsychotic side-effects. Findings from the review indicated variability in monitoring practices. Observable or life-threatening effects, particularly cardiometabolic risks were prioritised within structured monitoring systems (Sugawara et al., 2014; Monteleone et al., 2019; Castberg et al., 2006; Nielsen et al., 2010). This reflects alignment with guideline driven physical health priorities. However, quality of life related side effects were less consistently assessed and were frequently reliant on clinical judgement and patient disclosure. Quality of life side-effects, including sedation and sexual dysfunction, were less systematically explored with patients and often dependent of patient identification and disclosure (Morrison et al., 2015a; Morrison et al., 2015b; Quinn et al., 2012; Potkin et al., 2013). These side effects were frequently described as expected or tolerated rather than actively addressed.

These findings do not simply indicate oversight; this pattern suggests the presence of an implicit hierarchy of harm within mental health support. Side-effects associated with measurable biomedical markers or acute safety risk are structurally embedded withing care pathways, particularly clozapine prescribing practices. Whereas, side-effects impacting daily functioning, identity and treatment adherence are recognised but not consistently prioritised within formal monitoring frameworks. This hierarchy appears reinforced by organisation pressures (Blagden et al., 2021; Nash et al., 2021). Studies highlighted time constraints, fragmented responsibility, and predominately clinician led consultations influencing what is practically prioritised (Castberg et al., 2006; Morrison et al., 2017; Patel et al., 2005, Potkin et al., 2013)

The review indicates that side-effect management is influenced not only by pharmacological risk but by service design and cultural norms regarding what counts as clinically urgent. Sedation, despite its documented impact on concentration, motivation, and adherence (Reeve et al., 2025), appears to sit outside the core biomedical monitoring framework.

Empirical paper

The empirical study explored how multidisciplinary clinicians define, assess and manage antipsychotic medication related sedation within NHS secondary mental health services. Sedation was widely recognised and perceived to have a meaningful impact on engagement, employment, adherence and recovery. Clinicians typically defined sedation in terms of excessive sleepiness, fatigue, cognitive impairments, while also noting difficulty distinguishing sedation from negative symptoms or depression. Without careful assessment, sedation may be misattributed to illness severity, potentially leading to medication escalation that could exacerbate functional impairment. Despite this recognition, assessment was

predominately informal, with limited use of structured tools or sedation specific guidance. Management approaches were largely behavioural and pragmatic, with cautious consideration of medication changes.

Interestingly, sedation was reported as impactful, however from open text responses, sedation was not uniformly framed as problematic. Participants also described sedation as calming or therapeutically useful in some contexts. This finding suggests sedation is negotiated within competing service priorities, at times supporting short term stabilisation. However, this may potentially limit longer-term engagement and adherence to medication required to minimise risk of relapse. The findings of the empirical project build on from the systematic review by illustrating how sedation is recognised in practice but not consistently embedded within structured, patient-centred and recovery-orientated care.

Critical Appraisal

Strengths and limitations

The use of complementary methodologies represents a key strength of this thesis. The systematic review provided more broad contextual grounding, while the empirical study offered more focused, UK-based insight into how sedation is currently understood and managed in practice. This strengthened the overall interpretation and supported the development of the proposed “hierarchy of harm” idea.

The systematic review had several methodological strengths. The protocol was prospectively registered on PROSPERO, enhancing transparency and reducing the risk of post-hoc methodological changes. Registration required a priori specification of inclusion criteria, search strategy, and planned synthesis approach, strengthening methodological integrity. Of the full-text articles screened, 100% were independently reviewed by a second

rater. To my knowledge, this is the first systematic review to synthesise clinicians' perspectives on the broader assessment and management of antipsychotic side effects in psychosis.

However, the included studies were methodologically heterogeneous, limiting comparability and preventing meta-analysis. Sedation was rarely the primary focus of the included papers, meaning conclusions regarding its prioritisation are drawn from wider discussions of side effects rather than direct investigation. This reflects a broader limitation within the field itself, where sedation is often embedded within general side-effect measures.

The empirical study exceeded its required sample size and included a multidisciplinary group of clinicians across service settings. The survey was informed by existing literature, consultation with experts by experience, clinician feedback, and piloting, supporting its relevance and clarity. However, the purpose-developed sedation survey has not undergone full psychometric validation. The cross-sectional design limits causal interpretation, and clinician estimates of prevalence and discontinuation were subjective rather than objectively verified.

Voluntary participation may have introduced self-selection bias, and nurses were proportionally overrepresented in the sample, however it is understood this may mirror the clinical workforce. In addition, the study focused solely on clinician perspectives, without parallel service-user data, limiting conclusions about alignment between professional and lived experience.

This thesis portfolio is exploratory rather than definitive. It offers greater conceptual clarity and highlights patterns within practice, while pointing toward areas requiring further development.

Clinical implications

The findings presented highlight the need for greater conceptual clarity and more consistent assessment processes to move beyond informal discussion toward shared, recovery-informed monitoring of quality of life related side effects. Given the overlap between sedation, negative symptoms, and comorbid mood presentations, sedation should be explicitly incorporated into assessment and formulation to reduce misattribution and avoid unintended medication escalation.

The difference between short-term stabilisation and longer-term participation warrants more deliberate multidisciplinary discussion. Making the balance between patient experience and clinical priorities explicit may strengthen collaborative decision-making and ensure that sedation is considered in relation to recovery goals rather than solely within acute risk management.

Although behavioural advice such as sleep hygiene is commonly recommended, clinicians described limited access to targeted interventions, highlighting a gap between recognition and effective management. Sleep hygiene alone has no evidence as a standalone treatment for sleep disorders (Trauer et al., 2015). However, while approaches such as CBT-I provide an evidence-based framework for sleep disorders, effectiveness in addressing medication-related sleepiness and daily functioning in psychosis remains unclear (Reeve et al., 2021; Waters et al., 2020).

More broadly, routine and open conversations about sedation's impact may further strengthen it as an important clinical concern rather than an inevitable consequence of treatment. Ensuring that patient and carer perspectives are central to these discussions is

essential if medication management is to align meaningfully with patient-centred and longer-term recovery.

Future research

Future research should prioritise the development and validation of structured sedation assessment tools, given the reliance on informal monitoring identified within this portfolio. Establishing reliable and clinically meaningful measures would support clearer differentiation between sedation, negative symptoms, and depressive presentations.

Future research focused on examining how sedation's impact evolves across illness phases and recovery trajectories, particularly in relation to engagement, identity, and functional outcomes. Such research could clarify when sedation is experienced as stabilising and when it becomes obstructive to participation from a patient perspective.

Intervention studies targeting medication-related sedation, including psychologically informed behavioural approaches, would move the field beyond recognition of sedation towards active management. Finally, cross-cultural and implementation-focused research could determine whether the implicit hierarchy of harm identified in this thesis reflects broader service cultures and how monitoring processes translate into meaningful clinical action.

Dissemination

A summary of the findings will be shared with participating clinicians who opted to receive the results, as well as with the NHS trusts involved in recruitment. The systematic review and empirical study are intended for submission to peer-reviewed journals specialising in psychosis and schizophrenia research. Findings will be presented at the University of East

Anglia Doctorate in Clinical Psychology research conference and at the Psychosis Interest Network (PINE) meeting.

Further dissemination to NHS teams through service presentations and continuing professional development (CPD) events will be offered to support translation into routine practice and to acknowledge the contribution of services involved in recruitment.

Reflective account on the research process

As a final-year trainee clinical psychologist with prior experience in psychosis services, I approached this research with particular interests and assumptions that evolved over the course of completing the portfolio. Before training, I worked for three years in an Early Intervention in Psychosis team and, alongside clinical placements during training, observed both the life-saving benefits of antipsychotic medication and the everyday difficulties service users described, including fatigue and reduced motivation. These experiences shaped my early curiosity about sedation and its potential impact on engagement and recovery.

At the outset of this research, I largely conceptualised sedation as an impairment that should be minimised. My training emphasises autonomy, participation, and meaningful activity, which shaped my sensitivity to how sedation might affect these areas. During the empirical study, some clinicians described sedation as calming or protective. This prompted me to reflect on the contextual nature of sedation and the responsibilities associated with managing risk. Although my concerns about its potential impact on recovery remained, I developed a greater appreciation of how sedation may be interpreted differently depending on clinical priorities. This process strengthened my ability to hold the tension between stabilisation and autonomy without simplifying the issue into a single position.

An additional insight emerged from the survey methodology itself. While the quantitative data clarified perceived prevalence, assessment practices, and impact, the open-text responses provided context and more detailed explanations. The structured items identified patterns, but the narrative comments revealed how clinicians were thinking about sedation in practice. This highlighted how numerical findings can simplify the realities of everyday clinical work. It reinforced my view that clinician beliefs, although rarely foregrounded in research, may meaningfully shape variability in assessment and management.

I value working within multidisciplinary teams that engage meaningfully with the biopsychosocial model. Through this research, I became more aware of how different professional roles carry distinct responsibilities. Prescribers may appropriately prioritise relapse prevention and risk management, while psychological roles often focus on engagement, identity, and functional recovery. As a trainee psychologist without medical training, I do not prescribe medication and therefore approach side effects from a different professional position. My training has shaped my attention towards how sedation may influence engagement, identity, and everyday functioning. Acknowledging this positionality was important in ensuring that I interpreted findings with balance and respect for the broader clinical context in which prescribing decisions are made.

Conducting the systematic review further deepened my understanding of service complexity. It was notably difficult to identify studies that examined clinicians' beliefs and attitudes, rather than simply rates of monitoring or adherence to guidelines. This absence felt significant. Prescribing and advising on medication inevitably involves professional judgement about acceptable trade-offs, yet these perspectives are rarely explicitly examined in research. This may contribute to variability in practice that reflects not only knowledge

gaps or resource constraints but also underlying professional values and interpretations of risk.

This research has strengthened my capacity to hold competing priorities in mind. Rather than resolving the tension between stabilisation and recovery, I have become more comfortable recognising that both are legitimate and necessary within mental health services. It has reinforced my commitment to multidisciplinary dialogue and to approaching medication-related experiences with curiosity and openness, while ensuring that the perspectives of patients and carers remain central to these conversations.

Conclusion

This thesis has examined sedation as a clinically recognised yet conceptually variable aspect of antipsychotic treatment within mental health services. Across both the systematic review and empirical study, sedation emerged as impactful, variably understood, and inconsistently embedded within structured care. The findings suggest that how sedation is prioritised reflects not only pharmacological risk, but wider service structures, professional responsibilities, and interpretations of recovery. While exploratory in nature, this portfolio contributes greater clarity to an under-examined area of practice and highlights the importance of continued dialogue, research, and collaborative decision-making to ensure sedation is addressed in a way that supports both safety and everyday functioning.

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Appendices

Appendix A

Author guidelines for publication



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About the journal

Aims and scope

An International Multidisciplinary Journal of the Schizophrenia International Research Society

As an official journal of the Schizophrenia International Research Society (SIRS) *Schizophrenia Research* is THE journal of choice for international researchers and clinicians to share their work with the global **schizophrenia** research community. More than 6000 institutes have online or print (or both) access to this journal - the largest specialist journal in the field, with the largest readership!

Schizophrenia Research's time to first decision is as fast as 6 weeks and its publishing speed is as fast as 4 weeks until online publication (corrected proof/Article in Press) after acceptance and 14 weeks from acceptance until publication in a printed issue.

The journal publishes novel papers that really contribute to understanding the **biology** and **treatment** of **schizophrenic disorders**; *Schizophrenia Research* brings together biological, clinical and psychological research in order to stimulate the synthesis of findings from all disciplines involved in improving patient outcomes in schizophrenia.

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(4) Editorials.

(5) Schizophrenia meeting reviews: solicited and/or submitted.

(6) Book reviews (less than 1,000 words).

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Provide captions in a separate file.

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  - MethodsX
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Reference to a journal publication with an article number:

Van der Geer, J., Handgraaf, T., Lupton, R.A., 2022. The art of writing a scientific article. Heliyon. 19, e00205. https://doi.org/10.1016/j.heliyon.2022.e00205.

Reference to a book:

Strunk Jr., W., White, E.B., 2000. The Elements of Style, fourth ed. Longman, New York.

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Mettam, G.R., Adams, L.B., 2023. How to prepare an electronic version of your article, in: Jones, B.S., Smith, R.Z. (Eds.), Introduction to the Electronic Age. E-Publishing Inc., New York, pp. 281–304.

Reference to a website:

Cancer Research UK, 2023. Cancer statistics reports for the UK. http://www.cancerresearchuk.org/aboutcancer/statistics/cancerstatsreport/ (accessed 13 March 2023).

Reference to a dataset:

Oguro, M., Imahiro, S., Saito, S., Nakashizuka, T., 2015. Mortality data for Japanese oak wilt disease and surrounding forest compositions [dataset]. Mendeley Data, v1. https://doi.org/10.17632/xwj98nb39r.1.

Reference to software:

Coon, E., Berndt, M., Jan, A., Svyatsky, D., Atchley, A., Kikinzon, E., Harp, D., Manzini, G., Shelef, E., Lipnikov, K., Garimella, R., Xu, C., Moulton, D., Karra, S., Painter, S., Jafarov, E., & Molins, S., 2020. Advanced Terrestrial Simulator (ATS) v0.88 (Version 0.88) [software]. Zenodo. https://doi.org/10.5281/zenodo.3727209.

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Before completing the submission of your manuscript, we advise you to read our submission checklist:

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- All files have been uploaded, including keywords, figure captions and tables (including a title, description and footnotes) included. This includes any supplementary materials and videos.
- Spelling and grammar checks have been carried out.

- All references in the article text are cited in the reference list and vice versa.
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Appendix B

Systematic Review. Mixed Methods Appraisal Tool (MMAT), Hong et al., 2018

Part I: Mixed Methods Appraisal Tool (MMAT), version 2018

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5 Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				
	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

Appendix C

Empirical Project. G Power analysis*

A priori power analysis was conducted using a G* power statistical analysis tool (Buchner et al., 2001) for a linear regression model with one predictor. Assuming an effect size of $f^2 = 0.25$, $\alpha = .05$, and desired power of 95%, the required sample size was $n = 89$. A target sample of 100 participants was therefore set to ensure adequate power and allow for incomplete responses.

Appendix D

Empirical Project. Recruitment Poster



Appendix E

Empirical Project. Participation Information Sheet

IRAS ID Number: 348648
FMH SREC Number: ETH2425-0111
Version Number: 7.0
Version Date: 28/05/2025

PARTICIPANT INFORMATION STATEMENT

University of East Anglia

Project Title: Clinician perspectives on assessment and management of sedation in psychosis.

You are being invited to take part in a research project. Before you decide whether to take part, please do take the time to read through the below information, it is important for you to understand the purpose of this project and what it will involve.

What is the study about?

This project aims to understand clinicians' views on sedation from antipsychotics in psychosis, and what current clinical practices around assessment and management of sedation in secondary services.

Who is running the study?

This project is being completed by Ellen Holden, trainee clinical psychologist at the University of East Anglia. This study is part of a thesis portfolio submitted as part of the clinical psychology doctorate programme. Ellen has a particular interest in service development, service user experience and clinician's experience of working in psychosis services after working in early intervention for three years before training. The project is supervised by Dr Sarah Reeve and Dr Marco Vivolo.

What will the study involve for me?

To take part in this project all you will need to do is complete an online survey, this survey is made up of tick box questions, and a small number of open-text boxes for you to put more information if you wish.

How much time will it take?

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Version Date: 28/05/2025

The survey will take approximately 15-25 minutes to complete depending on how much detail you would like to add to the open-text boxes.

Do I have to take part? Withdrawing?

Participation in this project is completely voluntary; you do not have to take part. Consent will be obtained on the following page after pressing continue. You can withdraw from this study at any time by exiting the survey and your responses will not be saved. Once you have submitted your completed survey as your data is anonymised your responses will not be able to be identified or withdrawn.

Are there any risks associated with taking part?

There are not any anticipated risks in taking part in this project. In general, it is understood that these can be a very challenging roles and we appreciate how time pressured working in mental health services can be, therefore the survey has been developed to be as easy to complete and short as possible. The content of the survey does ask about impact but is not expected to cause discomfort. Please do take time for yourself if needed, and you can withdraw at any time by following the instructions above.

This project has had approval from the following:

UEA FMH SREC ethics committee: ETH2425-0111

HRA for NHS Sites: 348648

Are there any benefits associated with taking part?

By taking part in this project, you will be contributing valuable information to inform change to continuously develop and improve services, where possible, for people with psychosis. You will be contributing to literature that will be of use to future projects. Optional entry to a prize draw upon completion of the survey for a chance to win one of ten £20 gift/shopping

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Version Number: 7.0
Version Date: 28/05/2025

vouchers. The email addresses entered will not be able to be linked to the responses by any of the research term.

How to enter the prize draw?

Once you have completed the survey you will be given a link to a separate Microsoft form to be able to enter.

If you wish to be entered into the prize draw, we will require your email for entry. This information will be stored separately to the survey responses via a Microsoft form and deleted by June 2026. The email addresses entered will not be able to be linked to the responses by any of the research term.

If you wish to be added to the mailing list to be updated on the project, you will have the option to enter your email address via a Microsoft form. This information will be stored separately to the survey responses and deleted upon publication of the project through a peer reviewed journal with open access. The email addresses entered will not be able to be linked to the responses by any of the research term.

How will we use information about you?

We will need to use information from you from your survey responses for this research project. This information will include professional group, clinical setting and region, no identifiable information will be collected. People will use this information to do the research or to check your records to make sure that the research is being done properly. People who do not need to know who you are will not be able to see your contact details. Your response will be stored using a code number instead. University of East Anglia is the sponsor of this research. University of East Anglia is responsible for looking after your information. We will share your information related to this research project with the following types of organisations:

- Public access peer reviewed journal
- Research presentations affiliated with UEA

We will keep all information about you safe and secure by:

- All the information you provide will remain anonymous
- The survey does ask for profession, clinical setting and region but no identifiable information will be asked for and in any future report the information gathered will be presented as frequencies rather than individual responses.
- Any identifying information provided in the survey will be removed prior to analysis.

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- The anonymised survey responses will be saved in a password protected, secure university server and only the researcher and supervisors will have access to the raw data in line with UK general data protection regulations (UK GDPR) and the data protection act (DPA, 2018).
- In line with UEA's research and data management policies, research data for the project will be retained for at least 10 years following any publication (University of East Anglia, 2017). Dr Sarah Reeve will act as the custodian for the data generated by this research project. The data collected will be stored on a secure server and will be deleted after the mandatory 10-year period by Dr Sarah Reeve.

International Transfers

Your data will not be shared outside the UK.

How will we use information about you after the study ends?

We will keep your study data for a maximum of 10 years. The study data will then be fully anonymised and securely archived or destroyed.

What are your choices about how your information is used?

You can stop being part of the study at any time, without giving a reason, but we will keep information about you that we already have

Where can you find out more about how your information is used?

You can find out more about how we use your information:

- by asking one of the research team
- by sending an email to dataprotection@uea.ac.uk

What if I would like further information about the study?

If you have further questions or would like to know more about this project, please feel free to contact the researcher by email: Ellen.holden@uea.ac.uk

What will happen to the results of this project?

This project will be presented as part of a thesis portfolio and will be submitted to a peer reviewed journal with the aim of publication and potential to be presented at research conferences. Your responses will remain anonymous throughout any publications or presentations. If wish you receive a copy of the final project, please contact the researcher.

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What if I have any complaints or any concerns about this research?

If you have a complaint or any concerns and wish to speak to the researcher, please feel free to contact the researcher by email: ellen.holden@uea.ac.uk. You can also contact the primary supervisor for the project Dr Sarah Reeve by email: sarah.reeve@uea.ac.uk or the secondary supervisor Dr Marco Vivolo by email: m.vivolo@uea.ac.uk.

If you have any concerns about the way this project is being conducted or wish to make a complaint to someone independent of this project, please contact Professor Niall Broomfield, Head of the Department of Clinical Psychology and Psychological Therapies and Deputy Dean of Norwich Medical School on n.broomfield@uea.ac.uk. Address: Department of Clinical Psychology and Psychological Therapies, Norwich Medical School, Norwich Research Park, University of East Anglia, Norwich, Norfolk, NR4 7TJ

I want to take part, what's next?

Once you have read through this information, please click next, this will take you to a new page where you will be asked for your consent to take part and if consent is obtained you will be directed to open the survey. If your do not have time but still wish to take part, please close the link and you can reopen the link when it is more convenient.

Appendix F

Empirical Project. Consent Form

IRAS ID Number: 348648
FMH SREC Number: ETH2425-0111
Version Number: 5.0
Version Date: 29/04/2024

PARTICIPANT CONSENT FORM

University of East Anglia

Clinician perspectives on assessment and management of sedation in psychosis

UEA FMH ethics approval number: ETH2425-0111

IRAS HRA ethics approval number: 348648

Researcher: Ellen Holden

Supervisors: Dr Sarah Reeve and Dr Marco Vivolo

This project aims to understand how sedation from antipsychotic medication is currently being understood, assessed and managed across secondary services supporting people with psychosis. This project aims to explore what clinical work is not being captured by current literature to help support people experiencing sedation from antipsychotics and what may change or influence how sedation is assessed and managed for clinicians.

To participate in this project, it is essential you understand the information presented on this page and give informed consent to take part. By clicking 'yes' at the bottom of this page you are confirming that you have read this consent form, and you agree to take part in this study. Please ensure you agree with the below statements before continuing to the survey.

I confirm that I:

- √ I have read the participant information sheet and have been given the opportunity to discuss my involvement in the study with the researchers if needed
- √ I understand the purpose of the study, what the study will involve, and any risks or benefits associated with being involved
- √ I understand this study is voluntary and I do not have to take part if I do not wish to

IRAS ID Number: 348648
FMH SREC Number: ETH2425-0111
Version Number: 5.0
Version Date: 29/04/2024

- √ I understand I have the right to withdraw from this study and can end the survey at any time by closing the browser window, and in this case the data will not be stored
- √ I understand my responses to the survey are anonymous
- √ I understand once I have submitted the completed survey the data is anonymised, and responses will not be able to be identified or withdrawn
- √ I understand the anonymised data collected will be stored for 10 years and will be available for use in future research
- √ I am aware and understand that no personal information will be gathered. I am aware not to enter any personal information in the responses to the survey and if this is done accidently it will be deleted by the researcher before analysis.

Yes, I consent to take part.

No, I do not consent to take part.

Appendix G

Empirical Project. Clinician Survey

2. How many letter "r" is there in the word "strawberry"? *

FMH SREC: ETH2425-0111
IRAS Project ID: 348648
Version Number: 5.0
Version Date: 07/04/2024

3. **Have you worked for at least 6 months with people with a diagnoses under the umbrella of psychosis? ***

- ◯ Yes
- ◯ No

4. **Approximately how many years' experience have you had working with people with psychosis? ***

5. **Please select your profession and/or job title: ***

- ◯ Clinical Psychologist
- ◯ Assistant Psychologist
- ◯ Psychiatrist
- ◯ Mental Health Nurse
- ◯ Occupational Therapist
- ◯ Cognitive Behavioural Therapist
- ◯ Social Worker
- ◯ Employment Support/ IPS Worker
- ◯ Support Time and Recovery Worker (STaR Worker)
- ◯ Support Worker
- ◯ Peer Support Worker

6. **Please select the type of service you currently work in or if previous experience please select the service, you had the most experience with people with psychosis: ***

- ◯ Early intervention in psychosis (EIP, FEP)
- ◯ Adult community mental health team
- ◯ Inpatient service
- ◯ Crisis resolution home treatment team/crisis team
- ◯ Forensic inpatient service
- ◯ Community forensic service
- ◯ Other

7. **If other please specify: ***

8. **Please select which region you currently work in or spent the majority of your work with this client group? ***

- ◯ East of England
- ◯ London
- ◯ Midlands
- ◯ North east and Yorkshire
- ◯ North west
- ◯ South east
- ◯ South west

9. **Does your role include prescribing medication? ***

- ◯ Yes
- ◯ No

10. **Approximately what percentage of patients you work with are prescribed an antipsychotic medication? 0-100% ***

11. **Approximately what percentage of patients you work with are prescribed other types of medication in addition to an antipsychotic? 0-100% ***

12. **Would you consider excessive sleeping to be a 'problem' for service users? ***

- ◯ Yes
- ◯ No

13. **If yes how many days of excessive sleepiness each week would indicate a 'problem'? ***

- ◯ 0
- ◯ 1
- ◯ 2
- ◯ 3
- ◯ 4
- ◯ 5
- ◯ 6
- ◯ 7

14. **How many sleeping hours in a 24-hour period would indicate excessive sleeping?** Please answer between 0-24 hours *

15. What is your understanding of sedation in psychosis, would you be willing to provide a brief description *

- ◯ Yes
- ◯ No

16. **Please add a description here:** *

17. **Do you believe sedation in psychosis is an area that is well understood?** *

- ◯ Yes
- ◯ No
- ◯ Other

18. If other please add more information:

19. **What presentations would you consider indicates sedation?**
Answer: Tick all that apply, definitions included from oxford English dictionary, Cambridge dictionary or Collins dictionary. *

Tiredness: Definition- feeling in need of rest or sleep.

- ☐ Tick all that apply

Sleepy during the day: Definition- needing or ready for sleep

- ☐ Tick all that apply

Relaxed: Definition- being free from tension or anxiety

- ☐ Tick all that apply

Calm: Definition- The absence of strong emotions, not showing and/or feeling nervousness, anger or other strong emotions.

- ☐ Tick all that apply

Drowsy: Definition- sleepy, lethargic and half asleep.

- ☐ Tick all that apply

Trouble concentrating: Definition- cannot focus on a task or conversation, think clearly or maintain attention

- ☐ Tick all that apply

Irritability: Definition- The quality of becoming annoyed very easily

- ☐ Tick all that apply

Slowed reaction time: Definition- a reduced speed to react to stimulus

- ☐ Tick all that apply

Brain fog: Definition- an impediment to thinking clearly, inability to concentrate or remember.

☐ Tick all that apply

Decision making: Definition- the action or process of making important decisions

☐ Tick all that apply

Feeling like a zombie: Definition- deprived of energy or vitality

☐ Tick all that apply

Soothed: Definition- gently calm a person or their feelings

☐ Tick all that apply

Pacify: Definition- quell the anger, agitation or excitement of a person

☐ Tick all that apply

20. **Are you required to routinely assess sedation in your role? ***

○ Yes
○ No

21. **How often are you required to assess sedation? ***

○ Daily
○ Weekly
○ Fortnightly
○ Monthly
○ 6 Monthly
○ Yearly

22. **How do you formally assess sedation? ***

☐ Open questions
☐ Self-report measures
☐ Routine outcome measures
☐ Structures interviews/assessments
☐ Other

23. **If selected self-report measures please state which ones:**

24. **If selected routine outcome measures please state which ones:**

25. **If selected other please state here:**

26. **Are you aware of any specific service guidelines for assessing sedation in psychosis?** This may include service policies around specific side effect management or NICE guidance. *

- ◯ Yes
- ◯ No

27. **If yes, what service guidance are you aware of? ***

28. **Are you informally discussing sedation with the patients/service users you work with although not required by the service? ***

- ◯ Yes
- ◯ No

29. **In what context are you discussing sedation?** Answer: tick all that apply *

- ☐ When a patient/ service user mentions it
- ☐ When a carer/family member mentions it
- ☐ At every contact
- ☐ Physical health assessments
- ☐ Outpatient appointments (OPA)
- ☐ Care planning approach (CPA)
- ☐ Other

30. **If other please state:**

31. **If you do not assess sedation, who's responsibility is it to assess this? ***

32. **What extent do you agree sedation in psychosis is well assessed? ***

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

33. **What percentage of your patients experience sedation?** 0-100% *

34. **To what extent do you agree it is possible to improve or manage experiences of sedation?** *

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

35. **What would you recommend to a patient/service user if they reported experiencing sedation?** *

- ☐ Individual psychological therapy (e.g. CBTp)
- ☐ Medication changes
- ☐ Wait and see
- ☐ Sleep hygiene
- ☐ Activity scheduling
- ☐ Reassurance it is a normal side effect
- ☐ Family intervention (FIP)
- ☐ Additional medication
- ☐ Caffeine
- ☐ Behavioural activation
- ☐ No naps during the day
- ☐ Psychoeducation
- ☐ Health living advice
- ☐ To nap during the day
- ☐ Relapse prevention/ early warning signs work
- ☐ Peer support
- ☐ Other

36. **If other please state:**

37. **What additional ideas do you have that could help patient/service users manage sedation that are not offered by your service?** *

38. **To what extent do you agree sedation in psychosis is managed effectively? ***

- ◯ Strongly disagree
- ◯ Disagree
- ◯ Neutral
- ◯ Agree
- ◯ Strongly agree

39. **Approximately what percentage of patients attempt to stop taking medication due to sedation?** 0-100% *

40. **Approximately what percentage of patients attempt to stop taking medication due to other side effects (not including sedation)?** 0-100% *

41. **Other than medication side effects, from your clinical experience what else would cause sedation? ***

42. **For each of the following areas of a service user's life, please rate how much impact you feel sedation has: ***

Attending appointments and engaging with support team

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Accessing employment and/or engaging in paid or voluntary employment

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Accessing wider community such as social groups

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Family life

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Mood

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Medication adherence

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Maintaining a safe home environment

- ◯ No impact
- ◯ Minimal impact
- ◯ Moderate impact
- ◯ Significant impact
- ◯ Very significant impact
- ◯ Not applicable to service

Friendships and romantic relationships

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Goal setting and motivation for recovery

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Patient views on the future in general

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Hopefulness

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Patient view on recovery

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Looking after physical health e.g. attending physical health appointments, nutrition and exercise

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

Stigma around patient's own mental health diagnosis

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact
- ○ Not applicable to service

General confidence and self-esteem

- ○ No impact
- ○ Minimal impact
- ○ Moderate impact
- ○ Significant impact
- ○ Very significant impact

Appendix H

Empirical Project. Psychosis Attitude Scale

On a 7-point scale from "strongly disagree" to "strongly agree" with a value of 4 indicating "neutral."

1. People with psychosis need others to take care of most things for them.
2. Relating to persons experiencing psychosis is difficult.
3. In general, I have the ability to understand people with psychosis.
4. Working with people with psychosis is uncomfortable.
5. There is little I can do to help people with psychosis.
6. I am able to work with people who have psychosis.
7. It is hard to imagine what it might be like to have psychosis.
8. In general, it is rewarding to work with people who have psychosis.
9. I want to work with people with psychosis.
10. Hallucinations, odd beliefs, and/or disorganised thinking can happen to anyone under enough stress.
11. I have a clear idea of how to interact with people who have psychosis.
12. I have adequate training working with persons with psychosis.
13. Psychosis is adequately treated with medication alone.
14. Psychosis is too severe to be helped by cognitive behavioural therapy.
15. My current level of training allows me to work with persons with psychosis.
16. On the whole I am satisfied with the way I work with people who have psychosis.
17. People who have psychosis hardly ever get better.
18. It is safe to ask people questions about their delusions and hallucinations (psychosis).
19. Delusions can be understood within the context of a person's life.

Kopelovich, S. L., Stiles, B., Hallgren, K. A., Kreider, V., Hrouda, D. R., & Sivec, H. J. (2022). Measuring practitioner attitudes toward psychosis and recovery: Exploratory factor analysis of the Psychosis Attitudes Scale. *Psychiatric Rehabilitation Journal*, *45*(3), 273.

Appendix I

Empirical Project. Participant Debrief Sheet

IRAS ID Number:
Version Number: 4.0
Version Date: 28/03/2024

DEBRIEF SHEET

University of East Anglia

Project Title: Clinician perspectives on assessment and management of sedation in psychosis

Thank you for taking part in this study, which is aiming to capture, from your point of view, what the current understanding of sedation from antipsychotics in psychosis is, how this is assessed, managed and what the impact of sedation is on people with psychosis. We appreciate how busy working in mental health services can be and thank you taking the time to complete this survey.

If you have a complaint or any concerns and wish to speak to the researcher, please feel free to contact the researcher by email: ellen.holden@uea.ac.uk. You can also contact the primary supervisor for the project Dr Sarah Reeve by email: sarah.reeve@uea.ac.uk or the secondary supervisor Dr Marco Vivolo by email: m.vivolo@uea.ac.uk.

If you have any concerns about the way this project is being conducted or wish to make a complaint to someone independent of this project, please contact Professor Niall Broomfield, Head of the Department of Clinical Psychology and Psychological Therapies and Deputy Dean of Norwich Medical School on n.broomfield@uea.ac.uk. Address: Department of Clinical Psychology and Psychological Therapies, Norwich Medical School, Norwich Research Park, University of East Anglia, Norwich, Norfolk, NR4 7TJ

If by completing this survey you experienced any distress, please seek support from the services available such as your GP, staff wellbeing and supervisors if appropriate. Although

this survey was not intended to cause any distress this can be a challenging and emotive environment to work in.

Alternatively, support can be found through the following charities:

Mind: www.mind.org.uk Infoline: 0300 123 3393

Samaritans' helpline: 116 123

If you wish to be entered into the prize draw for a £20 gift voucher and/or be added to the mailing list to receive updates on the research project, please click the link below. This information will be stored separately from your responses to the survey. Email addresses for the prize draw will be securely deleted by June 2026. Email addresses for updates will be securely deleted upon publication of the project on an open access platform.

https://forms.office.com/e/VMmGp0KEq0

You can take a screen shot of this page.

Thank you again.

Best wishes,

Ellen Holden

Appendix J

Empirical Project. NHS Research Ethics Committee Approval Letter





Miss Ellen Holden
Department of Clinical Psychology and Psychological Therapies
Norwich Medical School, Norwich Research Park,
University of East Anglia
Norwich, Norfolk
NR4 7TJ

Email: approvals@hra.nhs.uk

24 June 2025 (revised and re-issued 5th September 2025)

Dear Miss Holden

HRA and Health and Care Research Wales (HCRW) Approval Letter

Study title:	**Clinician perspectives on assessment and management of sedation in psychosis.**
IRAS project ID:	**348648**
Protocol number:	**N/A**
REC reference:	**25/HRA/1727**
Sponsor	**Unversity of East Anglia**

I am pleased to confirm that **HRA and Health and Care Research Wales (HCRW) Approval** has been given for the above referenced study, on the basis described in the application form, protocol, supporting documentation and any clarifications received. You should not expect to receive anything further relating to this application.

Please now work with participating NHS organisations to confirm capacity and capability, in line with the instructions provided in the "Information to support study set up" section towards the end of this letter.

How should I work with participating NHS/HSC organisations in Northern Ireland and Scotland?
HRA and HCRW Approval does not apply to NHS/HSC organisations within Northern Ireland and Scotland.

If you indicated in your IRAS form that you do have participating organisations in either of these devolved administrations, the final document set and the study wide governance report (including this letter) have been sent to the coordinating centre of each participating nation. The relevant national coordinating function/s will contact you as appropriate.

Please see IRAS Help for information on working with NHS/HSC organisations in Northern Ireland and Scotland.

How should I work with participating non-NHS organisations?
HRA and HCRW Approval does not apply to non-NHS organisations. You should work with your non-NHS organisations to obtain local agreement in accordance with their procedures.

What are my notification responsibilities during the study?

The *"After HRA Approval – guidance for sponsors and investigators"* document on the HRA website gives detailed guidance on reporting expectations for studies with HRA and HCRW Approval, including:

- Registration of Research
- Notifying amendments
- Notifying the end of the study

The HRA website also provides guidance on these topics and is updated in the light of changes in reporting expectations or procedures.

Who should I contact for further information?
Please do not hesitate to contact me for assistance with this application. My contact details are below.

Your IRAS project ID is **348648**. Please quote this on all correspondence.

Yours sincerely,



Benita Hallewell-Goodwin

Email: approvals@hra.nhs.uk

Copy to: *Ms Katt Riley*

List of Documents

The final document set assessed and approved by HRA and HCRW Approval is listed below.

Document	*Version*	*Date*
Contract/Study Agreement template [348648_mNC_PIC_Agreement(Sponsor-PIC)]		
Copies of materials calling attention of potential participants to the research [Poster]	5	28 March 2025
Evidence of Sponsor insurance or indemnity (non NHS Sponsors only)		01 August 2024
IRAS Application Form [IRAS_Form_23042025]		23 April 2025
Letter from sponsor		23 April 2025
Letters of invitation to participant [Email]	5	29 April 2025
Non-validated questionnaire [Survey]	5	07 April 2025
Other [PIC Request email]	1	28 March 2025
Other [Social media post]	3	28 March 2025
Other [Email to registration bodies]	1	28 March 2025
Other [Debrief Sheet]	4	28 March 2025
Other [Secondary supervisor summary CV]	1	01 October 2024
Other [UEA FMH SREC Ethical approval confirmation]	1	10 April 2025
Other [Trust R&D initial email]	2	29 April 2025
Other [Professional indemnity confirmation]	1	01 August 2024
Other [Amendments HRA Further information from applicant]	1	09 May 2025
Other [HRA Further information required]		03 June 2025
Participant consent form [Consent form]	5	29 April 2025
Participant information sheet (PIS) [PARTICIPANT INFORMATION STATEMENT]	7	28 May 2025
Research protocol or project proposal [Protocol]	5	29 April 2025
Summary CV for Chief Investigator (CI) [CI CV Ellen Holden]		14 April 2025
Summary CV for supervisor (student research) [Sup CV Dr Sarah Reeve]		01 October 2024
Summary CV for supervisor (student research) [Supervisor CV]		01 October 2024
PIC Site list (excel)		

Information to support study set up

The below provides all parties with information to support the arranging and confirming of capacity and capability with participating NHS organisations in England and Wales. This is intended to be an accurate reflection of the study at the time of issue of this letter.

Types of participating NHS organisation	Expectations related to confirmation of capacity and capability	Agreement to be used	Funding arrangements	Oversight expectations	HR Good Practice Resource Pack expectations
Activities at NHS organisations will involve PIC activity only, including the provision of information about the study	Research activities should not commence at participating NHS organisations in England or Wales prior to their formal confirmation of capacity and capability to deliver the study in accordance with the contracting expectations detailed. Due to the nature of the activities involved, organisations will be expected to provide that confirmation to the sponsor Within **35 days** of receipt of the local information pack After	The sponsor has provided the appropriate model non-commercial PIC agreement that it intends to use as a contract between the sponsor and NHS organisations acting as Participant Identification Centres (PICs).	The sponsor will not be providing funding to Participant Identification Centres (PICs)	The Chief Investigator will be responsible for all study activities performed at PICs.	Where an external individual will be conducting any of the research activities that will be undertaken at this site type then they would be expected to hold a Letter of Access. This should be issued be on the basis of a Research Passport (if university employed) or an NHS to NHS confirmation of pre-engagement checks letter (if NHS employed).

	HRA/HCRW Approval has been issued. If the organisation is not able to formally confirm capacity and capability within this timeframe, they must inform the sponsor of this and provide a justification. If the sponsor is not satisfied with the justification, then the sponsor may escalate to the National Coordinating Function where the participating NHS organisation is located.				

Other information to aid study set-up and delivery

This details any other information that may be helpful to sponsors and participating NHS organisations in England and Wales in study set-up.
The applicant has indicated they do not intend to apply for inclusion on the NIHR CRN Portfolio.

Appendix K

Empirical Project. University of East Anglia Faculty of Medicine and Health Sciences Research Ethics Subcommittee Approval Letter

University of East Anglia
Norwich Research Park
Norwich. NR4 7TJ

Email: ethicsmonitor@uea.ac.uk
Web: www.uea.ac.uk

Study title: Clinician perspectives on assessment and management of sedation in psychosis

Application ID: ETH2425-0111

Dear Ellen,

Your application was considered on 10th April 2025 by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee).

The decision is: **approved**.

This approval will expire on **3rd March 2026**.

Please note that your project is granted ethics approval only for the length of time identified above. Any extension to a project must obtain ethics approval by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) before continuing.

It is a requirement of this ethics approval that you should report any adverse events which occur during your project to the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) as soon as possible. An adverse event is one which was not anticipated in the research design, and which could potentially cause risk or harm to the participants or the researcher, or which reveals potential risks in the treatment under evaluation. For research involving animals, it may be the unintended death of an animal after trapping or carrying out a procedure.

Any amendments to your submitted project in terms of design, sample, data collection, focus etc. should be notified to the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) in advance to ensure ethical compliance. If the amendments are substantial a new application may be required.

Approval by the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee) should not be taken as evidence that your study is compliant with the UK General Data Protection Regulation (UK GDPR) and the Data Protection Act 2018. If you need guidance on how to make your study UK GDPR compliant, please contact the UEA Data Protection Officer (dataprotection@uea.ac.uk).

Please can you send your report once your project is completed to the FMH S-REC (fmh.ethics@uea.ac.uk).

I would like to wish you every success with your project.

On behalf of the FMH S-REC (Faculty of Medicine and Health Sciences Research Ethics Subcommittee)

Yours sincerely,

Dr Paul Linsley