

Qualitative Diary Methods in Mental Health Research

A Scoping Review and Recommendations for Research and Reporting

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Abstract: Qualitative diary methods (QDMs) have great potential for mental health research, as they provide rich data about experiences and phenomena as and when they happen, from the perspectives of participants themselves. They provide unique insight into behavior, cognitions, and change over time in greater depth and detail than other quantitative or qualitative methods might offer. This paper presents the results of a scoping review of QDMs in mental health research, aimed at clarifying how diary methods are used in mental health research, and outlining key decisions and considerations in planning and conducting a qualitative diary study. Forty-eight papers were reviewed, and the findings highlight different elements of QDMs. The research aims, suitability for participants, and ethical issues are first discussed, followed by elements of diary study design including diary format, administration, intervals, timeline, sample size, diary structure and guidance, and additional data collection methods. Finally, analysis approaches and the strengths and challenges of QDMs are reviewed. Discussion around the future of QDMs follows, including a checklist for conducting and reporting a qualitative diary study.

Keywords: diaries, qualitative, experience sampling, longitudinal, mental health

Qualitative diaries provide rich data about events and experiences as and when they happen and across time, giving a unique insight into events, experiences, and perceptions of the participants keeping the diaries. Qualitative diary methods (QDMs) can garner novel insights into mental health, but to date QDM research in this area is limited.

Qualitative diaries are defined here as any diary kept by participants detailing their experiences, thoughts, or feelings, beyond completing surveys with short-form answers or questionnaire scales. This paper provides a scoping review of how QDMs are used in mental health research, consolidated into a list of recommendations for QDM research and reporting to support the rigorous use of this method.

Alaszewski (2006) highlights the potential of narratives produced through diaries to help us understand how experiences are constructed and communicated. A free-text diary kept over time has the potential to capture details of experience that are missing from retrospective recall (as in interviews), and to shed light on patterns and/or changes over time (Bolger et al., 2003; Monk et al.,

2015). Interviews can be influenced by difficulties with recall, with retrospective thinking applying motive and meaning to actions, thoughts, or feelings that may not be present at the time, thus distorting understanding of processes as they happen (Bartlett & Milligan, 2015).

Research involving direct and predefined questioning, such as questionnaires and even semi-structured interviews, may restrict understanding and obscure problems (Pettersen & Rosenvinge, 2002). Crucially, reliance on outcome measures and interviews means that the context and complexities of day-to-day life with mental illness may not be captured. Capturing these through qualitative diaries can provide a wealth of information to improve understanding of the experiences and needs of people with mental health difficulties and inform intervention development.

Alongside the value of data collected using QDMs, this method may improve accessibility of research participation and benefit participants. For some, it may be easier to write about certain things than to discuss them in an interview (Woll, 2013), particularly when relating stigmatized experiences, as the private nature of diaries means there are

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reduced social barriers to communicating personal thoughts and feelings (Hoffmann et al., 2010). QDMs can be inherently participatory, enabling participants to take part in their own time and way, with greater control over what information to contribute and how, in contrast to the restrictive settings of interviews, focus groups, or questionnaires (Bijoux & Myers, 2006). Researcher's influence over participants' responses is reduced if the researcher is not present for data collection, meaning that power differentials are less salient than in other data collection methods (Monrouxe, 2009). This may be particularly helpful when investigating mental health conditions or other difficult experiences (Jordan et al., 2021; Lev-Wiesel, 2006). Keeping a research diary may be helpful for participants' own lives, offering an opportunity for reflection and to focus on particular issues, which can then be a coping mechanism and provide health benefits in and of itself (Matthews & Williamson, 2016; Pennebaker & Seagal, 1999). Finally, keeping a written diary can help the diarist to make sense of experiences of vulnerability and support understanding of ongoing experiences and self-development (Bernal Marcos et al., 2023).

Technology is now available to support digital data collection that promises to make QDMs significantly easier in terms of costs, time, and convenience for both researchers and participants; various smartphone applications and websites offer systems for recruitment, data collection, and participant reminders. This has proven fruitful for Ecological Momentary Assessment (EMA; Shiffman et al., 2008) and Experience Sampling Methods (ESM; Myin-Germeys et al., 2009) studies, which have been able to utilize larger sample sizes and longer data collection periods (de Vries et al., 2021). EMA and ESM studies involve repeatedly sampling behaviors and experiences in real-time using short scales and questionnaires but do not typically involve qualitative elements as the focus is typically on statistical analysis.

Theoretical understandings derived from qualitative diary research may be more transferable, or have wider applicability in terms of generating theory, if based on a range and depth of information and understanding (Kuper, 2008), and may further support the integration of qualitative and quantitative data in randomized controlled trials (Richards et al., 2019). Alongside this, the rise in natural language processing approaches means there is increasing demand for participant-produced text for health research (Askland et al., 2015), and QDMs offer a route to rich data, putting participant words at the heart of research.

There is therefore considerable value in using QDMs in mental health research, both for researchers and participants. However, the relative novelty of this method in mental health research means that QDMs are being used variably, and there is little guidance on how to do this type of research well. Additionally, there are several potential challenges and ethical considerations specific to this method, such as possible impacts of diary keeping on participants, and issues around the burden of research, participant engagement, and dropout, which need to be explored and understood.

This paper presents a scoping review of mental health research using QDMs. This review aims to find out how QDMs are used in mental health research, the key benefits and challenges, and to provide an overview of decisions involved in planning and conducting a qualitative diary study in mental health research.

Methods

A scoping review was chosen as the aim is to examine the range and nature of qualitative diary studies in mental health, and how these were conducted, rather than an exhaustive summary of each QDM research study (Munn et al., 2018). The review was conducted by researchers who all have experience in designing and using QDM research in the mental health field. Searches were conducted, with the date set as from the beginning of the databases to May 2022, on Ovid Medline(R), Embase, PsycINFO, and CINAHL, with combinations of the search terms (and variations of) diary, qualitative, mental health, and psychology. The full search strategy and examples can be found in the Electronic Supplementary Material 3. The findings of this scoping review are reported in line with PRISMA guidelines for scoping reviews (Tricco et al., 2018).

The included papers had to contain a qualitative diary as a primary data collection method and present a qualitative analysis of the diaries. The objective of keeping the diary had to be to report on the experience of any mental health or mental ill-health symptoms, or experience of mental health treatment or intervention. Papers needed to contain empirical data and be published in English in a peer-reviewed journal.

Papers were excluded if the diary was not qualitative if no qualitative analysis was presented, if the diary was used as part of an intervention rather than as a research element, or if the only qualitative element was a list of items to be rated numerically.

Additionally, sleep, food, and activity diaries were excluded as these are common research elements that primarily contain categorical or numeric data. A total of 3,860 papers were identified through searches. A PRISMA chart (Page et al., 2021) reporting the numbers of included and excluded papers is presented in Figure 1. Title and abstract screening was conducted by one researcher, with 10% also screened by a second screener to ensure the reliability and validity of paper selection. If a paper was on the borderline

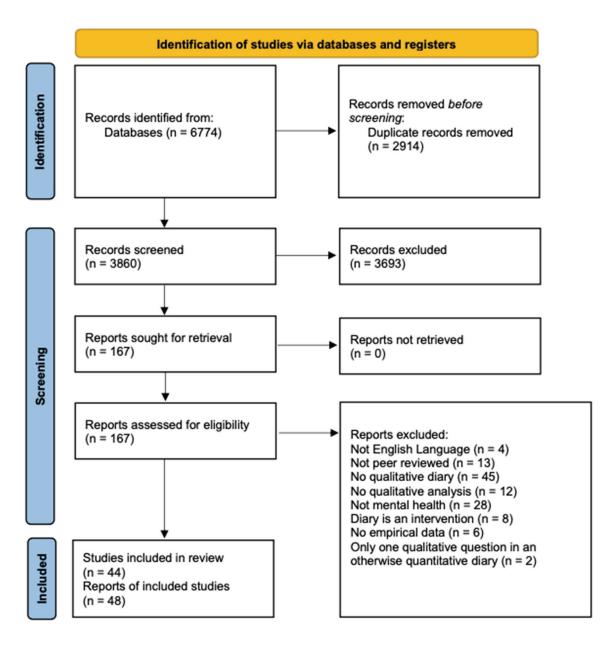


Figure 1. PRISMA Flow diagram of the systematic review (from Page et al., 2021. For more information, visit: http://www.prisma-statement.org/).

between inclusion and exclusion, it was discussed with two researchers, and a joint decision was made. Following recommendations by Siddaway et al. (2019), we took a cautious approach to exclusion to avoid dismissing any potentially useful texts, so a larger number of papers went to the full-text screening stage. Full-text screening of 167 records was carried out by one researcher, with discussions with two other researchers in all cases where it was not clear if the paper should be included. Forty-eight papers, totaling 44 studies, met the criteria for inclusion in the review.

The following details were extracted from each paper: citation; aims; study population; condition or experience being investigated; justification given for using diary

methods; method of diary collection (paper, app, email); mode of diary (video, audio, text, photo); the number of diary entries solicited per participant; timespan of diary completion; the format of diary (prompted, unprompted); nature of prompts (if used – e.g., "Time to fill out your diary" or specific questions); the number of participants (including age and ethnicity where reported); other data collection methods used; analysis methods; epistemological position; summary of findings; where the relevant, statement of what findings resulted from the diaries compared to other data collection methods in the study; methodological challenges of using diary methods; and any ethical issues associated with the use of diary methods in the study.

A summary of all included papers is provided in Electronic Supplementary Material 1 (Table E1).

Analysis of the included papers followed a constant comparative method described by Gentles et al. (2016). Firstly, data were extracted from each paper using the categories outlined above. Following this, matrices were made of each category to allow for easier comparison between each study's approach to each section.

Narrative summaries were then produced for each question, including comments on what was unclear or missing from the research report. The final analysis involved organizing the summaries into categories that flow logically in the decision-making process of planning and conducting a qualitative diary study in mental health research.

Findings

The included studies were published between 1996 and 2021, across 13 countries, primarily the UK, US, Australia, and Nordic countries. Participants varied widely in age, gender, Ethnicity, and mental health difficulties, and some studies also included participants who were clinicians or mental health therapists. Most papers were intervention evaluation studies, or research exploring experience of particular mental health difficulties. Full details of included studies can be found in Electronic Supplementary Material 1 (Table E1).

We have divided the review findings into three sections for clarity, each containing subsections summarizing the different aspects of planning and conducting a qualitative diary study. Suitability of Qualitative Diary Methods section outlines factors involved in determining if diary methods are suitable for the proposed research. Diary Design section encompasses the different factors involved in designing a qualitative diary study. Finally, Analysis and Evaluation section covers approaches to analyzing data and evaluating of strengths and limitations of QDMs.

Suitability of Qualitative Diary Methods

This section provides an overview of key considerations in determining whether QDMs are suitable for the proposed research. It covers the types of research aims for which QDMs are used, the suitability of QDMs for the participants, and ethical issues that might be specific to conducting a QDM study.

Research Aims

The papers included in the review highlight that QDM designs exist on a wide continuum, from short-term recording of experiences to support an interview (Jordan et al.,

2021) to long-term data collection that tracks in-depth experiences over time (Thupayagale-Tshweneagae, 2011). The included papers covered a range of research types, with three intervention development studies (where diary data supported the development of an intervention), 23 intervention evaluation studies (where diary data was used to evaluate participant experiences of interventions), and 18 studies investigating experiences of mental health.

Several key reasons were cited for using QDMs, including capturing immediate experiences reducing recall problems, and gathering rich and in-depth data (such as in Lundgren et al., 2018). Matthews and Williamson (2016) reasoned that this data may provide insights into triggers, processes, and influencing factors. The value of diaries in putting participants' experiences at the center of the research was also frequently cited. Upthegrove et al. (2016) stated that open-ended diaries could enable important topics to arise organically across time and participants, rather than being introduced by researchers, laying the groundwork for further research and theory development. McDermott et al. (2019) chose diary methods in several formats to support inclusivity, agency, and the different ways of knowing their participants (LGBTQ+ youth). Some studies used QDMs to support other data collection. Claydon et al. (2018) used diaries to triangulate interview data and strengthen findings. Others used diaries to create topic guides for subsequent interviews (Denno et al., 2021; Deslandes et al., 2015; Long et al., 2016).

In summary, reasons for choosing QDMs centered around the richness and immediacy of data, and as a way to support participants as experts on their own experiences. However, several studies used qualitative diaries without explaining the decision-making around this (such as Fenwick et al., 2018; Gill et al., 2016).

Suitability for Participants

Several important points were raised by papers in considering whether diary methods were appropriate and feasible for their participants. Given the review inclusion criteria and aims, most participants in the included papers were experiencing some form of mental health difficulty, and researchers were sensitive to the needs of each specific population and considered several advantages of diary methods for participants. Sheridan et al. (2018) highlighted the possibility of mental or physical health conditions affecting participants' ability to regularly record detailed diary entries, due to general concentration and energy level challenges of living with health conditions, alongside potential challenges with motivation. Jordan et al. (2021) reflected on the impact of mental health difficulties on verbal expression, suggesting that diaries could help participants who are less comfortable expressing themselves verbally by giving them the chance to collect and articulate

their thoughts. Additional benefits to participants were highlighted by Craig et al. (2017), such as allowing participants time to reflect on their responses and encouraging openness, alongside practical advantages such as reduced cost and enabling participants from a wider area to take part in the research. The removal of the direct presence of a researcher may also support participants to provide more open and direct reflections on their experiences, apart from the power dynamics and constraining structure and topic guides of interviews (Upthegrove et al., 2016).

These benefits to participants are also benefits to the research, supporting participants to engage in studies and communicate their experiences in ways that may be more comfortable to them, and therefore providing richer, more meaningful data.

Ethical Considerations

The personal, detailed, and in-the-moment nature of diary data means there are specific ethical issues that must be navigated in a QDM study. However, only seven studies in the review considered ethical aspects specific to the use of diaries, beyond token comments about gaining consent at the start of the study.

Some reflected on the potential difficulties for participants in keeping a research diary. Diaries were considered by some to offer a more private way of collecting sensitive data (McDermott et al., 2019), which can be helpful for participants, but may also lead to safeguarding disclosures that the researchers have a responsibility to respond to. Metsaränta et al. (2019) reported that in their study of adolescents with depression, they had research staff read diary entries daily to identify any concerns around suicidal ideation or harm to self or others, which were then reported to participants' healthcare providers. Graneheim and Åström (2016) reflected that talking about difficult experiences in diary entries could potentially lead to further distress, but stop short of discussing how this could be managed; they also acknowledge that narrating difficult experiences could provide relief. Pope et al. (2006) gifted participants notebooks at the end of the study so that they could continue to keep a diary if they found the practice helpful.

Differences in literacy levels might make diary entries difficult for some, or even exclude them, as highlighted by Rappe et al. (2008) and Sheridan et al. (2018), who suggest offering different media as alternatives to written diaries. Halliday et al. (2022) and Lundgren et al. (2018) also reflected on the potential burden to participants of taking part, with the latter arguing that in their intervention study, keeping a diary was not an unreasonable request as journaling is often encouraged as a complementary practice to mindfulness-based stress reduction. Lundgren et al. (2018) did, however, instruct participants that short or no entries were fine if they sometimes did not feel up to

writing detailed diary entries. Halliday et al. (2022) noted that participants overall found the study to be a positive experience.

Halliday et al. (2022) reported that some participants were anxious about confidentiality and that this affected what they chose to disclose. The authors report that they managed this retrospectively by using caution around the presentation of the study findings, including limiting the use of detailed quotes.

Finally, Halliday et al. (2022) offer reflections on qualitative diary studies where the researchers also have lived experience of the study topic. In their diary study during the COVID-19 pandemic, they highlight that researchers were going through the same circumstances of isolation and stress as the participants. They highlighted their focus on reflexivity throughout the study as a way of managing this, and provided researchers with a training session with a counselor before the study started – to provide advice on managing emotional health and on strategies for handling contacts with participants.

It is concerning that so few studies using QDMs appeared to consider ethical issues around the use of diaries – although reporting may have been circumscribed by restrictive publication word counts. Given the sensitivity of the topic of mental health research, and the potential vulnerability of the participants, it is important to demonstrate, firstly, that the researchers are considering the impact of this method on the participants and, secondly, how QDMs can support people with mental health difficulties to take part in research in ways that are helpful for them.

Diary Design

This section outlines factors and considerations involved in each aspect of a qualitative diary study.

Diary Format

Video, audio, written, or photo diaries are common diary formats, though some studies have used art journals (Gwinner et al., 2013) or incorporated drawing (Jordan et al., 2021). Of the included papers, 36 were written diaries, four were a combination of photos and written entries, two were drawing and writing, one was audio, and one was video and writing.

Most papers with written diaries did not provide a clear rationale for why the specific diary format was chosen, beyond highlighting why diary methods, in particular, were used. Explanations included that written diaries can be effective in situations where participants may struggle with verbal communication (Jordan et al., 2021) and that they give participants a space to record reflections on events and experiences (Voriadaki et al., 2015). McDermott et al. (2019) argue that methods that privilege verbal articulation

alone provide limited access to emotional dimensions, particularly in young people, so using a combination of written and visual diaries may provide access to different ways of knowing. Denno et al. (2021) and Wallis et al. (2022) used diaries and photo elicitation to allow participants to identify important topics and to guide the focus of subsequent interviews. Graham et al. (2021) used video and text diaries but did not explain the choice of these formats.

Overall, there was limited consideration of the different diary formats and how these could affect the experiences captured by participants. Where this was discussed, it appeared that the appropriate format depends on the specific research question, alongside participant preference, and ethical issues, as outlined above.

Diary Administration

Whatever the diary format, there are multiple ways participants can record and send their diary entries to the researchers. The majority of included studies used paper diaries (n=30), while one gave an option of paper or email diaries, two just used email, three used online survey software, one used mobile phones, and one used a custommade website. For six of the included papers, it was not clear how participants completed diaries.

Paper diaries, in the form of booklets or notebooks given to participants, are an easy and familiar format for participants. However, Lundgren et al. (2018) identified several limitations to paper diaries in their study, stating that they can get lost, forgotten, or be read by others, and have to be returned to the researcher. A website where participants can complete and submit their diary entries may solve some of these issues, as used by McDermott et al. (2019), as may email diary submission (Reed et al., 2014).

Graham et al. (2021) used an online and mobile platform for their diaries, arguing that digital diary methods participants to record their experiences as they occur during their day-to-day lives.

Overall, discussion around the pros and cons of different diary formats, and justification for choice of format, was missing from included papers. These details would have helped evaluate how the study was conducted, and that the potentially different needs of participants were considered in the study planning. It is also of note that no Patient and Public Involvement in Research (PPI) was reported for studies in terms of assessing what participants would prefer.

Diary Intervals

Diary intervals refer to how frequently participants complete diary entries. Seven papers used daily entries, six used weekly, one used twice weekly, and 23 used event-contingent entries, where participants recorded a diary entry whenever an event of interest occurred. For seven papers, it was unclear how often participants kept diary entries.

Where diaries were kept daily, this was usually for a short period of days or a week preceding an interview which would draw on the diary entries, as in Jordan et al. (2021), McDermott et al. (2019), and Wallis et al. (2022). In Gill et al. (2016), participants kept daily entries for a month, with two interviews over this period providing an opportunity to expand on their diary entries if they wished. For Craig et al.'s (2017) study, participants sent entries once or twice a week, detailing work-related experiences of hearing auditory hallucinations, which allowed the researchers time between entries to read them and send follow-up or clarifying questions. Sabaner and Arnold (2021) also asked participants to keep diaries twice weekly, in this case responding to two different diary prompts each week. Weekly diaries were typically used alongside intervention evaluations, to coincide with weekly intervention sessions and solicit participants' reflections post-session (e.g. Friedrichsen et al., 2014; Kragh et al., 2017; and others). Halliday et al. (2022) used weekly diaries over 8 weeks during COVID-19 lockdown measures.

Event contingent diaries naturally had the widest range of diary intervals, and it was not reported how frequently participants kept diaries, only the events that were being solicited, and for how long the diary-keeping period took place. Graneheim and Åström (2016) used event-contingent diaries to account for variations in mental health and ensure that relevant experiences were captured when they happened, in their study aimed at understanding experiences of living with someone with severe mental health difficulties. Thomas and Lovell (2015) asked their participants to record any vomiting events, and their thoughts and feelings around them, to get an understanding of the day-to-day management of their bulimia symptoms.

In summary, the frequency and interval of diary entries depended on the phenomenon or experience that is being investigated, how much and how quickly it may change across time, and the detail of data needed.

Diary Time Period

There was a wide range of time periods that diaries were kept for, depending on the aims of the research and what experience or phenomenon was being investigated. Intervention evaluation studies tend to involve keeping diaries for the time span of the intervention only, such as Rayner et al. (2022) in which participants were asked to record any self-harm during a 12-week intervention, and Kragh et al. (2017), where participants reported their experience of light therapy and depression during the nine-week intervention. Studies using diaries to support interviews typically used a week long diary-keeping period (e.g., Long et al., 2016).

Event-contingent diaries range in length according to what is being explored. Gill et al. (2016) wanted to fully

capture the depth and range of experiences of atypical medication in those with Auditory Verbal Hallucinations and asked participants to record their experiences daily for a month. In Sabaner and Arnold (2021), participants kept diaries twice weekly for 15 weeks, the duration of the first semester of college, recording their mental health experiences and how these changed over the course of the semester. One paper reported that participants kept diaries for 2 years, reporting their experiences of everyday life close to a person with mental ill-health, allowing time for expected large variations in mental health and how and when participants would have anything to report (Graneheim & Åström, 2016).

Many papers did not clearly report how long participants kept diaries, which left it unclear how much data was collected, and how experiences and changes over time might have been captured.

Sample Size

Diary study sample sizes vary greatly, with some large sample sizes such as Hagen et al. (2021) with 133 diaries, and Sheridan et al. (2018) with their thematic analysis of data from 70 participants, to the very small, such as Hoffmann et al. (2010) and their phenomenological study of five participants. The larger sample sizes of Hagen et al. (2021) and Sheridan et al. (2018) were facilitated by being embedded in intervention studies with large numbers of participants. In intervention studies, sample sizes were typically guided by interventions being investigated and how many participants the intervention had or needed (e.g. Canella et al., 2019). Matthews and Williamson (2016), reflected that there was significant variation in diary length, content, and structure, but that with their sample of 10 participants, the data was rich and in-depth.

Sample size in all qualitative research depends on the underlying epistemological approach and methodology, and the included papers largely reflected this, rather than specific discussions about diary data and sample size.

Diary Structure and Guidance

To support participants by providing relevant data, many studies gave participants diary-keeping guidance and prompts to respond to in their diary entries. Most papers provided general descriptions only – see Table E1 (Electronic Supplementary Material 1) for a full list of the guidance used for each study. For example, Stelter (2009) mentions that the diaries provided to participants contained introductory text, but did not specify what this involved. Most asked participants to report in general on the events or experiences that were the focus of the study, including Halliday et al. (2022), who asked participants to record general reflections on their week. Some researchers asked participants for a more specific focus in their diary entries, such as asking

for thoughts and feelings (Gilbert & Irons, 2004), or thoughts, feelings, routines, and experiences around the use of the trial drug (Canella et al., 2019). Nine papers did not report using any guidance or prompts for diaries.

One study used a hybrid method, Lundgren et al. (2018) asked participants to write freely about what was important to them but provided some (unreported) prompts for participants to respond to if they felt stuck. Finally, four studies included diaries that were unsolicited at the time of writing, where participants had provided their diaries to the researchers to support analysis (Claydon et al., 2018; Gentile, 2006; Hoffmann et al., 2010; Somer & Weiner, 1996). Somer and Weiner (1996) and Gentile (2006) used diaries kept by participants before the study as the sole data for analysis, so the data did not contain any prompting or shaping by the researchers, and provided vast amounts of detailed data to investigate experiences of trauma and eating disorders (Gentile) and whether early signs of dissociation were identifiable (Somer & Weiner, 1996).

Overall, guidance and prompts need to be open enough to put participants in control of what is recorded, ensuring the power of data collection is still in their hands, and to facilitate open and unconstrained data (Gill et al., 2016). Too open a structure may generate a wide variety of responses and topics that may ultimately be of little relevance to the research (Graneheim & Åström, 2016). Additionally, where diary prompts and guidance are not reported, the reader is left wondering what participants were responding to, and how these questions and guidance shaped the resulting data – introducing uncertainty about the trustworthiness of the study findings.

Additional Data Collection Methods

Several studies use qualitative diaries to complement other data collection within the study, such as interviews, questionnaires, or focus groups. Nine studies relied solely on diary data, 23 used diaries and interviews, and the rest used diaries alongside other data collection methods, such as focus groups, transcribed therapy sessions, photos, or questionnaires. See Electronic Supplementary Material 1, Table E1 for details of which study used each method and how.

The use of diaries to support interviews varied. Some used the diary as a form of topic guide for the interview (Long et al., 2016), as a memory prompt (Jordan et al., 2021), or to provide triangulation for interview data (Claydon et al., 2018). Others, such as McDermott et al. (2019) used a post-diary interview to explore in more detail the meanings of interactions reported in the diaries. Combining diaries with other data collection methods offers the potential to utilize their respective strengths, for example, the capacity of diaries to elicit rich, immediate data and of interviews to generate spontaneous responses and discussion (Craig et al., 2017). Incidents and experiences may be

recalled differently in an interview to how they were reported in the diary, providing insight into how they are processed and reflected on by participants (Mackrill, 2009).

For nine studies, diaries were the exclusive data collection method, with some of these highlighting the volume, depth, and detail of data provided (e.g. Thomas & Lovell, 2015; Craig et al., 2017). Sheridan et al. (2018) argue that using this approach can provide all participants in larger studies with equal opportunity to record their experiences, which may not be possible using interviews or other methods.

Analysis and Evaluation

This final section reviews analysis approaches in the included studies, as well as the challenges and strengths of using QDMs.

Analysis Method

Analysis of diaries varied, with Content Analysis (13 studies) and Thematic Analysis (11 studies) being the most popular. Five used Narrative Analysis, four Interpretative Phenomenological Analysis (IPA), and three Grounded Theory. For seven studies, the analysis approach was not explicitly labeled, instead presented as, for example, qualitative summaries (Gilbert & Irons, 2004), or psychoanalytic exploration (Gentile, 2006). Two papers specified that diaries themselves were not analyzed, as they had been used only as topic guides for interviews (Long et al., 2016; Wallis et al., 2022).

Halliday et al. (2022) described using a thematic analysis approach initially and then followed with a narrative approach due to concerns that thematic analysis alone would not capture the nuances of the individual narratives over time. Few others reflected on how the temporality of diary entries influenced their approach. With diary data collection taking place over time, some papers discussed considerations around when analysis should also take place. Electronic data collection provided some advantages for this, for example, Craig et al. (2017) used email for their data collection, which allowed them to analyze diaries as they were submitted, and then send follow-up questions to participants. Metsaränta et al. (2019) invited participants to submit diary entries electronically, and researchers read entries for risk and safeguarding issues weekly, but it seems that analysis took place at the end of the data collection period.

Practical considerations may determine when analysis can take place – such as in Friedrichsen et al. (2014), where paper diaries were collected at the end of the study. Friedrichsen et al. reflect that while they used Grounded Theory for analysis, they could not use constant comparison during analysis as it was completed at the end, and as a result, their analysis did not reach the point of saturation.

Challenges of Qualitative Diary Methods

Fourteen papers provided reflections on the challenges associated with using QDMs. Some of these have already been mentioned where relevant above. Several papers reported challenges with participant engagement. Matthews and Williamson (2016) and Sheridan et al. (2018) report that there was considerable variation in diary content, length, and structure, with Sheridan suggesting that this could introduce bias. Gilbert and Irons (2004) reported that all participants experienced problems in keeping diaries over 6 weeks - for example, losing them, forgetting to fill them in, which Lundgren et al. (2018) also reported. Metsaränta et al. (2019) found that despite SMS reminders, participation declined after the first week. Gilbert and Irons (2004) therefore suggested their data was unreliable and advised using shorter time periods or more frequent sampling points. Kragh et al. (2017) reported that most participants did not want to keep a diary at all.

Some of the difficulties around engagement were reported to be due to the mental health difficulties experienced by participants. Gill et al. (2016) stated that participants who were very disabled by illness, or who had difficulties expressing themselves, provided less detail in their diaries. They also reported that unspecified long-term effects of illness made some participants unable to keep a diary for the full period, which was a month, and that physical side effects of medication made writing difficult some participants. Metsaränta et al. (2019) also found that those who did not end up using the diary were those experiencing more severe mental health difficulties.

Several authors reflected on the impact of the diary methodology on the study findings. Lundgren et al. (2018) stated that collecting diaries at the end prevented researchers from asking follow-up or clarifying questions. They also noted that participants tended to write more in their diaries during the first half of data collection and urged caution with descriptive analysis of time points because of this. Sheridan et al. (2018) reflect that due to their large sample size, they did not apply the concept of saturation during their thematic analysis of diaries, which, they suggest, may limit transferability. Gill et al. (2016) acknowledged that the practicalities of analyzing large quantities of data made them limit their sample size (to 19).

In their study of depression in long-term-care residents, where participants kept a written, prompted diary for one week, Pope et al. (2006) found that while around half of participants experienced keeping the diary as positive, the other half had more negative experiences; reasons for this included physical health difficulties, and difficulties around expressing emotions, while some simply reported being relieved when the study was over. Sheridan et al. (2018) also reflected that motivation and health problems could be challenging for some participants, and recommended

alternative diary formats to suit different participant needs. Metsaränta et al. (2019) reported that significantly more girls used the diaries than boys, and this was reflected across the included studies, with 73% of participants being women or girls (where gender was reported); it is unclear if this is overall due to inclusion criteria or participant preferences.

Strengths of Qualitative Diary Methods

Many of the included papers reflected on the strengths of using QDMs. Rich insights into participants' thinking, emotions, and self-knowledge were commonly mentioned (Friedrichsen et al., 2014; Lev-Wiesel, 2006; Thomas & Lovell, 2015). Mackrill (2007) also highlighted the value of diaries in providing both real-time and retrospective insights into participants' lives, where diaries were used to reflect on current and past experiences. Lundgren et al. (2018) report that diaries meant that continuous struggles were captured over time, which may have been forgotten by the end of the intervention, allowing them to gain a more nuanced understanding of how participants' experiences change, and how processes unfold, over time.

The positive impact for participants of keeping diaries was also noted. Craig et al. (2017) reported that participants found increased awareness and understanding of their voice-hearing experiences, while Gilbert and Irons (2004) observed that participants' diaries of self-criticism helped them understand just how self-critical they were. In their study using audio diaries, Sabaner and Arnold (2021) reported that the audio diary format enabled participants to freely talk about their mental health difficulties and create their own narratives. They attributed this to the anonymity of recording audio notes and highlighted their value in gaining unfiltered, honest insights.

The benefits of QDMs on the trustworthiness and credibility of the study findings were much discussed. Where diaries were used alongside interviews and other methods, they were seen as adding a valuable real-time picture of experiences that provided a source of triangulation and improved the credibility and confirmability of findings (Claydon et al., 2018; Kragh et al., 2017; Voriadaki et al., 2015). Gill et al. (2016) stated that participants' accounts of how they constructed meaning in their lives generated high levels of trustworthiness in the data. Upthegrove et al. (2016) and Wallis et al. (2022) concluded that the information was less "contaminated" by researcher questions or outcome scales, providing a more credible representation of participants' experiences.

Finally, Graham et al. (2021) suggest that insights captured on the cognitions and emotions around the daily management of binge eating highlight the value of qualitative diary approaches in understanding individual variations in triggers, outcomes, and motivations. Graham et al. also

argue that their digital platform for diary entries supported ease of participation and low burden of the research for both participants and researchers.

Discussion

This review outlines the many aspects of conducting a qualitative diary study, including the preliminary decisions, such as whether QDMs are the best way to answer the research question for participants and researchers, to the building blocks of a qualitative diary study - formats, prompts and guidance, timelines, and other data. It highlights the strengths of QDMS, particularly in terms of insights into participants' minds and lives, and the credibility and trustworthiness of data collected over time. The review has also highlighted several aspects of QDMs where conduct, or reporting of conduct, needs some improvement. Overall, the review illustrates that QDMs are an excellent method for investigating mental health difficulties, but that these types of studies need to be conducted and reported transparently if their findings are to be trustworthy and impactful. It is noteworthy that there were a number of papers included in the review that met the criteria, but provided very limited data for the review (Hall et al., 2021; Li et al., 2019; Mackrill, 2007, 2008a, 2008b, 2011; Rungreangkulkij et al., 2011; Thomson et al., 2020; Thupayagale-Tshweneagae & Mokomane, 2014).

Many papers lacked discussions around how design decisions were made – such as intervals and timespan of diaries. There was overall a lack of reported PPI involvement in the planning and decision-making of the QDM studies included, which the authors of this review consider to be an essential part of QDM research. Patient involvement in research is particularly in the context of considering any negative impacts of diary-keeping on the participant population, some of which have been explored by Pennebaker and Chung (2011) in the context of expressive writing.

Additionally, there were few details around the prompts and guidelines participants were responding to in their diaries, which is concerning when these, responded to at multiple time points across the study, shape the data collected.

Some studies in this review highlight the benefits of electronic data collection in qualitative diary research (especially Craig et al., 2017; Halliday et al., 2022), typically higher when electronic devices already owned by participants are used for data collection (Berkman et al., 2014; Colombo et al., 2018). Apps for data collection have been largely overlooked by the qualitative community (Do & Yamagata-Lynch, 2017) even while they have become mainstream within quantitative research, where they are commonly used within EMA/ESM research (van Berkel et al., 2018). App data collection has many advantages,

enabling multiple formats within the same diary and automatic reminders to complete diary entries. Diaries that are easy to complete, have some degree of flexibility, and do not require participants to carry additional equipment around with them are more likely to support engagement and address some of the challenges of QDMS found by some of the included studies, such as losing paper diaries or simply forgetting to complete them. Findings from quantitative research support the acceptability and preferability of electronic data collection methods (Green et al., 2006; Weigold et al., 2013), and participant engagement is typically higher when electronic devices already owned by participants are used for data collection (Berkman et al., 2014; Colombo et al., 2018).

However, digital exclusion (DiMaggio et al., 2004) must also be considered and understood in reference to the participant population, and where possible alternatives should be offered to support access to and engagement in research.

Despite reported values of QDMs being the capturing of changes over time, very few included papers discussed how to analyze elements of time and longitudinally in the data. Few papers used narrative analysis, which would explicitly address this, and thematic and content analysis types were most common. There are many ways to respond to these methodological issues. Framework analysis can be used to support longitudinal qualitative research, and Lewis (2007) highlights the different layers of analysis and insight gained with this kind of data, looking at theme, case, and group analysis. Thematic trajectory analysis (Spencer et al., 2021) provides a way of conducting thematic analysis to take into account dynamic temporal aspects of change over time. Grossoehme and Lipstein (2016) describe an approach to trajectory analysis that can be incorporated into any methodology and can allow comparison of participants at multiple time points, or the following of individual trajectories across the whole data collection period. Essentially, there are many approaches to capturing changes over time in diary data, and the approach taken must be outlined to support confidence in the study findings. Similarly, where diaries are used alongside other data collection methods, consideration is needed over how to integrate the in-themoment data from diaries with other retrospective perspectives - and this was largely missing from the included studies.

This review was limited to intervention and experiences of mental health difficulties research, and the search terms may not have captured all qualitative diary studies or those using more innovative methods that come under the umbrella of QDMs but use different terminology. Limiting the review to the mental health field may mean that good practice examples and learnings around QDMs from other fields were excluded that may have also been applicable to mental health research. Nonetheless, the review provides

an overview of how QDMs can be used and a solid starting point for anyone considering incorporative qualitative diary aspects into their research.

While the current review does not consider participant experiences and preferences around QDM research, these are explored in a subsequent paper by the authors, where considerations of audience, communication, and benefits and challenges of QDMs are discussed from the perspective of participants who have taken part in QDM research (McCombie et al., 2023).

To address the lack of consistency in conduct and reporting in QDM papers, we have included a checklist of decisions and reporting items for conducting a QDM study, found in Electronic Supplementary Material 2. This is intended as a template from which to support design and decision-making in qualitative diary studies, based upon the findings from this review, and complements more generalized qualitative reporting checklists by outlining considerations specific to evaluating QDM research. Future research to solidify these reporting guidelines, using Delphi methods would be valuable to further support rigorous use and reporting of QDM research.

Conclusions

This paper has provided a comprehensive overview of the use of QDMs in mental health research. Key options, decisions, and implications of each are reviewed – from whether QDMs are an appropriate method to address a particular research question, to decisions needed in study setup stages, analysis of diary data, and potential challenges of the method. The strengths of the method, for participants, researchers, and the knowledge base alike, are clear.

The issues and considerations outlined in this paper support researchers using this method to make clear and justifiable decisions around study design and conduct. We hope that this paper and the checklist for qualitative diary research will go some way to making QDMs a more accessible research method for both quantitative and qualitative researchers working to improve their understanding of mental health.

Electronic Supplementary Materials

The electronic supplementary materials are available with the online version of the article at https://doi.org/10.1027/1016-9040/a000511

ESM 1. Table E1: Descriptions of included papers.

ESM 2. Table E2: Checklist for conducting and reporting qualitative diary methods in mental health research.

ESM 3. Search strategy.

References

- Alaszewski, A. (2006). Diaries as a source of suffering narratives: A critical commentary. *Health, Risk & Society, 8*(1), 43–58. https://doi.org/10.1080/13698570500532553
- Askland, K. D., Garnaat, S., Sibrava, N. J., Boisseau, C. L., Strong, D., Mancebo, M., Greenberg, B., Rasmussen, S., & Eisen, J. (2015). Prediction of remission in obsessive compulsive disorder using a novel machine learning strategy. *International Journal of Methods in Psychiatric Research*, 24(2), 156–169. https://doi.org/10.1002/mpr.1463
- Bartlett, R., & Milligan, C. (2015). What is diary method? Bloomsbury Academic.
- Berkman, E. T., Giuliani, N. R., & Pruitt, A. K. (2014). Comparison of text messaging and paper-and-pencil for ecological momentary assessment of food craving and intake. *Appetite*, *81*, 131–137. https://doi.org/10.1016/j.appet.2014.06.010
- Bernal Marcos, M. J., Zittoun, T., & Gillespie, A. (2023). Diaries as technologies for sense-making and self-transformation in times of vulnerability. *Integrative Psychological and Behavioral Science*, 1–26. https://doi.org/10.1007/s12124-023-09765-0
- Bijoux, D., & Myers, J. (2006). Interviews, solicited diaries and photography: "New" ways of accessing everyday experiences of place. *Graduate Journal of Asia-Pacific Studies*, 4(1), 44–124.
- Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, 54, 579–616. https://doi.org/10.1146/annurev.psych.54.101601.145030
- Canella, C., Bachmann, C., Wolfensberger, B., & Witt, C. M. (2019).
 Patients' experiences attributed to the use of *Passiflora incarnata*: A qualitative, phenomenological study. *Journal of Ethnopharmacology*, 231, 295–301. https://doi.org/10.1016/j.jep.2018.11.022
- Claydon, E. A., Davidov, D. M., Zullig, K. J., Lilly, C. L., Cottrell, L., & Zerwas, S. C. (2018). Waking up every day in a body that is not yours: A qualitative research inquiry into the intersection between eating disorders and pregnancy. BMC Pregnancy and Childbirth, 18, Article 463. https://doi.org/10.1186/s12884-018-2105-6
- Colombo, D., Cipresso, P., Fernandez Alvarez, J., Garcia Palacios, A., Riva, G., & Botella, C. (2018). An overview of factors associated with adherence and dropout to ecological momentary assessments in depression. *Annual Review of Cybertherapy and Telemedicine*, 8(4), 465–491. https://doi.org/10.3390/jcm8040465
- Craig, L., Cameron, J., & Longden, E. (2017). Work-related experiences of people who hear voices: An occupational perspective. *The British Journal of Occupational Therapy*, 80(12), 707–716. https://doi.org/10.1177/0308022617714749
- de Vries, L. P., Baselmans, B. M. L., & Bartels, M. (2021). Smart-phone-based ecological momentary assessment of well-being: A systematic review and recommendations for future studies. *Journal of Happiness Studies*, 22(5), 2361–2408. https://doi.org/10.1007/s10902-020-00324-7
- Denno, P., Wallis, S., Caldwell, K., Ives, J., Wood, S. J., Broome, M. R., Mallikarjun, P., Oyebode, F., & Upthegrove, R. (2021). Listening to voices: understanding and self-management of auditory verbal hallucinations in young adults. *Psychosis*, 14(3), 281–292.
- Deslandes, R. E., John, D. N., & Deslandes, P. N. (2015). An exploratory study of the patient experience of pharmacist supplementary prescribing in a secondary care mental health setting. *Pharmacy Practice*, 13(2), 1–8. https://doi.org/10.18549/pharmpract.2015.02.553
- DiMaggio, P., Hargittai, E., Celeste, C., & Shafer, S. (2004). Digital inequality: From unequal access to differentiated use. In K. M. Neckermann (Ed.), Social inequality (pp. 335–400). Russel Sage Foundation.

- Do, J., & Yamagata-Lynch, L. C. (2017). Designing and developing cell phone applications for qualitative research. *Qualitative Inquiry*, 23(10), 757–767. https://doi.org/10.1177/1077800417731085
- Fenwick, J., Toohill, J., Slavin, V., Creedy, D. K., & Gamble, J. (2018). Improving psychoeducation for women fearful of child-birth: Evaluation of a research translation project. *Women and Birth*, 31(1), 1–9.
- Friedrichsen, M., Hajradinovic, Y., Jakobsson, M., Sundberg, L., Jonsson, M. A., & Milberg, A. (2014). Prolonged grievers: A qualitative evaluation of a support group intervention. *Palliative & Supportive Care*, 12(4), 299–308. https://doi.org/10.1017/S1478951513000187
- Gentile, K. (2006). Timing development from cleavage to differentiation. *Contemporary Psychoanalysis*, 42(2), 297–325.
- Gentles, S. J., Charles, C., Nicholas, D. B., Ploeg, J., & McKibbon, K. A. (2016). Reviewing the research methods literature: Principles and strategies illustrated by a systematic overview of sampling in qualitative research. Systematic Reviews, 5(1), Article 172. https://doi.org/10.1186/s13643-016-0343-0
- Gilbert, P., & Irons, C. (2004). A pilot exploration of the use of compassionate images in a group of self-critical people. *Memory*, 12(4), 507–516. https://doi.org/10.1080/09658210444000115
- Gill, A., Morrall, P., & Knapp, P. (2016). Living with schizophrenia and atypical medication. *Mental Health Practice*, 19(5), 12–19. https://doi.org/10.7748/mhp.19.5.12.s16
- Graham, A. K., Neubert, S. W., Chang, A., Liu, J., Fu, E., Green, E. A., Kornfield, R., & Nicholas, J. (2021). Applying user-centered design methods to understand users' day-to-day experiences can inform a mobile intervention for binge eating and weight management. *Frontiers in Digital Health*, 3, Article 651749. https://doi.org/10.3389/fdgth.2021.651749
- Graneheim, U. H., & Åström, S. (2016). Until death do us part: Adult relatives' experiences of everyday life close to persons with mental ill-health. *Issues in Mental Health Nursing*, 37(8), 602–608. https://doi.org/10.1080/01612840.2016.1192707
- Green, A. S., Rafaeli, E., Bolger, N., Shrout, P. E., & Reis, H. T. (2006). Paper or plastic? Data equivalence in paper and electronic diaries. *Psychological Methods*, *11*(1), 87–105. https://doi.org/10.1037/1082-989X.11.1.87
- Grossoehme, D., & Lipstein, E. (2016). Analyzing longitudinal qualitative data: the application of trajectory and recurrent cross-sectional approaches. *BMC Research Notes*, 9, Article 136. https://doi.org/10.1186/s13104-016-1954-1
- Gwinner, K., Knox, M., & Brough, M. (2013). Making sense of mental illness as a full human experience: Perspective of illness and recovery held by people with a mental illness living in the community. Social Work in Mental Health, 11(2), 99–117. https://doi.org/10.1080/15332985.2012.717063
- Hagen, I., Skjelstad, S., & Nayar, U. S. (2021). "I just find it easier to let go of anger": Reflections on the ways in which yoga influences how young people manage their emotions. Frontiers in Psychology, 12, Article 729588. https://doi.org/10.3389/ fpsyg.2021.729588
- Hall, H., Munk, N., Carr, B., Fogarty, S., Cant, R., Holton, S., Weller, C., & Lauche, R. (2021). Maternal mental health and partner-delivered massage: A pilot study. Women and Birth, 34(3), Article e237. https://doi.org/10.1016/j.wombi.2020.05.003
- Halliday, E. C., Holt, V., Khan, K., Ward, F., Wheeler, P., & Sadler, G. (2022). "A lot of small things make a difference". Mental health and strategies of coping during the COVID-19 pandemic. *Health Expectations*, 25(2), 532–540. https://doi.org/10.1111/hex.13416
- Hoffmann, W. A., Myburgh, C., & Poggenpoel, M. (2010). The lived experiences of late-adolescent female suicide survivors: "A part of me died". *Health SA Gesondheid*, 15(1), 36–44. https://doi.org/10.4102/hsag.v15i1.493

- Jordan, A. L., Marczak, M., & Knibbs, J. (2021). "I felt like I was floating in space": Autistic adults' experiences of low mood and depression. *Journal of Autism and Developmental Disorders*, 51, 1683–1694. https://doi.org/10.1007/s10803-020-04638-6
- Kragh, M., Moller, D. N., Wihlborg, C. S., Martiny, K., Larsen, E. R., Videbech, P., & Lindhardt, T. (2017). Experiences of wake and light therapy in patients with depression: A qualitative study. *International Journal of Mental Health Nursing*, 26(2), 170–180. https://doi.org/10.1111/inm.12264
- Kuper, A. (2008). Critically appraising qualitative research. British Medical Journal, 337, Article a1035. https://doi.org/10.1136/ bmj.a1035
- Lev-Wiesel, R. (2006). Intergenerational transmission of sexual abuse? Motherhood in the shadow of incest. *Journal of Child Sexual Abuse*, 15(2), 75–101. https://doi.org/10.1300/J070v15n02_06
- Lewis, J. (2007). Analysing qualitative longitudinal research in evaluations. *Social Policy and Society*, 6(4), 545–556. https://doi.org/10.1017/s1474746407003880
- Li, X., Keady, J., & Ward, R. (2019). Transforming lived places into the connected neighbourhood: A longitudinal narrative study of five couples where one partner has an early diagnosis of dementia. Ageing and Society, 41(3), 605–627. https://doi.org/ 10.1017/s0144686x1900117x
- Long, J., Briggs, M., Long, A., & Astin, F. (2016). Starting where I am: A grounded theory exploration of mindfulness as a facilitator of transition in living with a long-term condition. *Journal of Advanced Nursing*, 72(10), 2445–2456.
- Lundgren, O., Garvin, P., Kristenson, M., Jonasson, L., & Thylen, I. (2018). A journey through chaos and calmness: Experiences of mindfulness training in patients with depressive symptoms after a recent coronary event A qualitative diary content analysis. *BMC Psychology*, 6(1), Article 46. https://doi.org/10.1186/s40359-018-0252-1
- Mackrill, T. (2007). Using a cross-contextual qualitative diary design to explore client experiences of psychotherapy. *Counselling and Psychotherapy Research*, 7(4), 233–239. https://doi.org/10.1080/14733140701722455
- Mackrill, T. (2008a). Exploring psychotherapy clients' independent strategies for change while in therapy. *British Journal of Guidance & Counselling*, 36(4), 441–453. https://doi.org/10.1080/03069880802343837
- Mackrill, T. (2008b). Pre-treatment change in psychotherapy with adult children of problem drinkers: The significance of leaving home. *Counselling & Psychotherapy Research*, 8(3), 160–165.
- Mackrill, T. (2009). A cross-contextual construction of clients' therapeutic practice. *Journal of Constructivist Psychology*, 22(4), 283–305.
- Mackrill, T. (2011). The case of "Jane and Joe": A diary-based, cross-contextual case study. Pragmatic Case Studies in Psychotherapy, 7(1), 187–229.
- Matthews, H., & Williamson, I. (2016). Caught between compassion and control: Exploring the challenges associated with inpatient adolescent mental healthcare in an independent hospital. *Journal of Advanced Nursing*, 72(5), 1042–1053. https://doi.org/10.1111/jan.12889
- McCombie, C., Miguel Esponda, G., Ouzanne, H., Knowles, G., Gayer-Anderson, C., Schmidt, U., & Lawrence, V. (2023). Preprint: Qualitative digital diary methods: Participant-led values for ethical and insightful mental health research. https://doi.org/10.31234/osf.io/8qfvk
- McDermott, E., Gabb, J., Eastham, R., & Hanbury, A. (2019). Family trouble: Heteronormativity, emotion work and queer youth mental health. *Health*, 1363459319860572. https://doi.org/10.1177/1363459319860572
- Metsaränta, K., Kurki, M., Valimaki, M., & Anttila, M. (2019). How do adolescents use electronic diaries? A mixed-methods study

- among adolescents with depressive symptoms. *Journal of Medical Internet Research, 21*(2), Article e11711. https://doi.org/10.2196/11711
- Monk, R. L., Heim, D., Qureshi, A., & Price, A. (2015). "I have no clue what I drunk last night" using Smartphone technology to compare in-vivo and retrospective self-reports of alcohol consumption. *PLoS One, 10*(5), Article e0126209. https://doi.org/10.1371/journal.pone.0126209
- Monrouxe, L. V. (2009). Solicited audio diaries in longitudinal narrative research: A view from inside. *Qualitative Research*, 9(1), 81–103. https://doi.org/10.1177/1468794108098032
- Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A., & Aromataris, E. (2018). Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. BMC Medical Research Methodology, 18(1), Article 143. https://doi.org/10.1186/s12874-018-0611-x
- Myin-Germeys, I., Oorschot, M., Collip, D., Lataster, J., Delespaul, P., & van Os, J. (2009). Experience sampling research in psychopathology: Opening the black box of daily life. *Psychological Medicine*, 39(9), 1533–1547. https://doi.org/10.1017/S0033291708004947
- Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., Shamseer, L., Tetzlaff, J. M., Akl, E. A., Brennan, S. E., Chou, R., Glanville, J., Grimshaw, J. M., Hrobjartsson, A., Lalu, M. M., Li, T., Loder, E. W., Mayo-Wilson, E., McDonald, S., ... Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. British Medical Journal, 372, Article n71. https://doi.org/10.1136/bmj.n71
- Pennebaker, J. W., & Chung, C. K. (2011). Expressive writing: Connections to physical and mental health. In H. S. Friedman (Ed.), *The Oxford handbook of health psychology* (pp. 417–437). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195342819.001.0001
- Pennebaker, J. W., & Seagal, J. D. (1999). Forming a story: The health benefits of narrative. *Journal of Clinical Psychology*, 55(10), 1243–1254. https://doi.org/10.1002/(SICI)1097-4679 (199910)55:10<1243::AID-JCLP6>3.0.CO;2-N
- Pettersen, G., & Rosenvinge, J. H. (2002). Improvement and recovery from eating disorders: A patient perspective. *Eating Disorders*, 10(1), 61–71. https://doi.org/10.1002/erv.425
- Pope, H., Watkins, K. W., Evans, A. E., & Hess, P. (2006). The perception of depression in long-term-care residents: A qualitative study using residential journaling. *Journal of Applied Gerontology*, 25(2), 153–172. https://doi.org/10.1177/0733464806286708
- Rappe, E., Koivunen, T., & Korpela, E. (2008). Group gardening in mental outpatient care. *Therapeutic Communities*, 29(3), 273–284. https://doi.org/10.7748/phc.19.10.14.s22
- Rayner, G. C., Bowling, G., Bluff, L., Wright, K., Ashworth-Lord, A., & Laird, C. (2022). A multi-method evaluation of a compassion-focused cognitive behavioural psychotherapy group for people who self-harm. *Counselling and Psychotherapy Research*, 22(3), 569–582. https://doi.org/10.1002/capr.12516
- Reed, M., Fenwick, J., Hauck, Y., Gamble, J., & Creedy, D. K. (2014). Australian midwives' experience of delivering a counselling intervention for women reporting a traumatic birth. *Midwifery*, 30(2), 269–275. https://doi.org/10.1016/j.midw. 2013.07.009
- Richards, D. A., Bazeley, P., Borglin, G., Craig, P., Emsley, R., Frost, J., Hill, J., Horwood, J., Hutchings, H. A., Jinks, C., Montgomery, A., Moore, G., Plano Clark, V. L., Tonkin-Crine, S., Wade, J., Warren, F. C., Wyke, S., Young, B., & O'Cathain, A. (2019). Integrating quantitative and qualitative data and findings when undertaking randomised controlled trials. *British Medical Journal Open*, 9(11), Article e032081. https://doi.org/10.1136/bmjopen-2019-032081

- Rungreangkulkij, S., Wongtakee, W., & Thongyot, S. (2011). Buddhist group therapy for diabetes patients with depressive symptoms. *Archives of Psychiatric Nursing*, 25(3), 195–205. https://doi.org/10.1016/j.apnu.2010.08.007
- Sabaner, C., & Arnold, K. D. (2021). Mental health in the transition to college: Experiences of six low-income, high-achieving students. *Journal of College Counseling*, 24(1), 18–35. https:// doi.org/10.1002/jocc.12174
- Sheridan, A., O'Keeffe, D., Coughlan, B., Frazer, K., Drennan, J., & Kemple, M. (2018). Friendship and money: A qualitative study of service users' experiences of participating in a supported socialisation programme. *International Journal of Social Psychiatry*, 64(4), 326–334. https://doi.org/10.1177/0020764018763692
- Shiffman, S., Stone, A. A., & Hufford, M. R. (2008). Ecological momentary assessment. *Annual Review of Clinical Psychology*, 4, 1–32. https://doi.org/10.1146/annurev.clinpsy.3.022806.091415
- Siddaway, A. P., Wood, A. M., & Hedges, L. V. (2019). How to do a systematic review: A best practice guide for conducting and reporting narrative reviews, meta-analyses, and meta-syntheses. *Annual Review of Psychology*, 70, 747–770. https://doi. org/10.1146/annurev-psych-010418-102803
- Somer, E., & Weiner, A. (1996). Dissociative symptomatology in adolescent diaries of incest victims. *Dissociation: Progress in the Dissociative Disorders*, 9(3), 197–209.
- Spencer, L., Radcliffe, L., Spence, R., & King, N. (2021). Thematic trajectory analysis: A temporal method for analysing dynamic qualitative data. *Journal of Occupational and Organizational Psychology*, 94(3), 531–567. https://doi.org/10.1111/joop.12359
- Stelter, R. (2009). Experiencing mindfulness meditation: A client narrative perspective. *International Journal of Qualitative Studies on Health and Well-being*, 4, 145–158. https://doi.org/10.1080/17482620903013908
- Thomas, M., & Lovell, A. (2015). Anxiety and compulsion patterns in the maintenance of bingeing/purging behaviours by individuals with bulimia nervosa. *Journal of Psychiatric and Mental Health Nursing*, 22, 20–29. https://doi.org/10.1111/jpm.12167
- Thomson, L. J., Morse, N., Elsden, E., & Chatterjee, H. J. (2020). Art, nature and mental health: Assessing the biopsychosocial effects of a "creative green prescription" museum programme involving horticulture, artmaking and collections. *Perspectives in Public Health*, 140(5), 277–285. https://doi.org/10.1177/1757913920910443
- Thupayagale-Tshweneagae, G. (2011). Development and implementation of a peer-based mental health support programme for adolescents orphaned by HIV/AIDS in South Africa. *Journal of Child and Adolescent Mental Health*, 23(2), 129–141. https://doi.org/10.2989/17280583.2011.634554
- Thupayagale-Tshweneagae, G., & Mokomane, Z. (2014). Evaluation of a peer-based mental health support program for adolescents orphaned by AIDS in South Africa. *Japan Journal of Nursing Science*, 11(1), 44–53.
- Tricco, A. C., Lillie, E., Zarin, W., O'Brien, K. K., Colquhoun, H., Levac, D., Moher, D., Peters, M. D. J., Horsley, T., Weeks, L., Hempel, S., Akl, E. A., Chang, C., McGowan, J., Stewart, L., Hartling, L., Aldcroft, A., Wilson, M. G., Garritty, C., ... Straus, S. E. (2018). PRISMA Extension for Scoping Reviews (PRISMA-ScR): Checklist and explanation. *Annals of Internal Medicine*, 169(7), 467–473. https://doi.org/10.7326/M18-0850
- Upthegrove, R., Ives, J., Broome, M. R., Caldwell, K., Wood, S. J., & Oyebode, F. (2016). Auditory verbal hallucinations in first-episode psychosis: A phenomenological investigation. *BJPsych Open*, 2(1), 88–95. https://doi.org/10.1192/bjpo.bp.115.002303
- van Berkel, N., Ferreira, D., & Kostakos, V. (2018). The experience sampling method on mobile devices. *ACM Computing Surveys*, 50(6), 1–40. https://doi.org/10.1145/3123988

- Voriadaki, T., Simic, M., Espie, J., & Eisler, I. (2015). Intensive multifamily therapy for adolescent anorexia nervosa: Adolescents' and parents' day-to-day experiences. *Journal of Family Therapy*, 37(1), 5–23. https://doi.org/10.1111/1467-6427.12067
- Wallis, S., Denno, P., Ives, J., Mallikarjun, P., Wood, S. J., Oyebode, F., Broome, M., & Upthegrove, R. (2022). The phenomenology of auditory verbal hallucinations in emotionally unstable personality disorder and post-traumatic stress disorder. *Irish Journal of Psychological Medicine*, 39(2), 196–206. https://doi.org/10.1017/ipm.2020.77
- Weigold, A., Weigold, I. K., & Russell, E. J. (2013). Examination of the equivalence of self-report survey-based paper-and-pencil and internet data collection methods. *Psychological Methods*, 18(1), 53–70. https://doi.org/10.1037/a0031607
- Woll, H. (2013). Process diary as methodological approach in longitudinal phenomenological research. *Indo-Pacific Journal of Phenomenology*, 13(2), 1–11. https://doi.org/10.2989/ipjp. 2013.13.2.2.1176a

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