

Partner involvement in treatment-related decision making in triadic clinical consultations – a systematic review of qualitative and quantitative studies.

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Abstract

Objective: Explore how partners are involved in treatment-related decision-making within triadic clinical encounters.

Methods: Studies were identified via database searches and reference lists. One author assessed eligibility of studies, which were verified by an additional co-author. Data were extracted by one author and cross-checked for accuracy by a second. Quality of articles was assessed using Quallsyst. Retrieved studies were categorised by one author, and agreed through discussion.

Results: From 2442 records, 14 studies were included and categorised as: (1) Descriptions of partner role and behaviour; (2) Role intentions of partners; (3) Relationship between partner and patient behaviour; (4) HCP-Partner interactions.

Conclusion: Partners are often involved in triadic clinical consultations that have implications for treatment-related decision making. Most studies offered general descriptions but lacked detailed investigation of communicative processes in triads and how these may operate with partners vs. other companions.

Practice implications: Existing studies lack detailed investigation through direct observation of the processes of partner involvement. Research in other areas of clinical communication suggests that future interventions could be informed by attention to the following areas: partner behaviour vs. other companion types in triads; relationships between partner involvement and decision-making processes; partner involvement in triads vs. other groups (e.g. quadratic).

Background

Clinical consultations are significant events not only for provision of information about diagnosis and treatment, but increasingly as a site within which decision making is shared between patients and clinicians. For some conditions (e.g. low grade prostate cancer) evidence regarding relative efficacy of available treatment options may be equivocal or unclear, and clinicians are therefore expected to be in equipoise when presenting options [1]. In such situations, patients may be faced with having to choose between two or more options with different risks and benefits, although the degree of choice that attends these encounters can vary widely (e.g. in relation to disease severity, multi-morbidity, or variation in decision making capacity). The number of encounters involving shared decision making is likely to increase with the growth of ageing populations managing multiple conditions [2]. In addition, professional development initiatives to support shared decision making (SDM) [3–7] have emerged with the goal of supporting healthcare professionals (HCPs) to become facilitators of SDM within consultations [1,2,8]. Researchers continue to examine related topics such as communication mechanisms affecting SDM (e.g. willingness of HCPs to ‘cede the floor’ and allow patients time to reflect on information and formulate questions [9]), and factors affecting its implementation as normal practice in clinical settings [10–13].

Research on communication in clinical settings has a long history, much of which has focused on physician–patient dyads [14–18]. Increasingly, such research has also examined interactions involving those who accompany patients to clinic appointments (such as friends, family members, or partners) [14]. Structural differences in interactions in triads when compared with dyads have long been observed in sociological studies, due to the potential formation of coalitions between two members who act to align their conduct in relation to the third member [19,20]. The importance of these

features of triadic encounters has been explored in relation to patient agency and decision making within the clinical encounter [19–24]. Patients may often be accompanied in consultations by companions such as family and/or partners [14,25]. In the case of partners, this relationship may have specific implications for decision making in triadic consultations, for example, if treatment options have potential implications for sexual and/or reproductive function. However, in a 2013 systematic review of physician-patient-companion communication and decision making, Laidsaar-Powell et al. noted that no studies had yet examined the ‘characteristics and behaviour types of specific third parties’ in these interactions (including partners) [14]. Thus, we undertook a systematic review to assess the current state of literature relating to partners (defined as marital or civil partners, or other kinds of intimate relation such as boyfriends or girlfriends). The objective of this review is *to explore how partners are involved in treatment related decision making within triadic clinical encounters*.

Methods

Search processes

We searched Medline, PsychINFO, CINAHL, AMED, EMBASE, and the Cochrane Database of systematic reviews (terms, limits applied, and results for each repository are given in table 1). Search terms and inclusion/exclusion criteria were developed using the PICOS framework (see table 1). Our aim was to review literature on partner involvement, and so it was decided that both qualitative and quantitative studies would be included. This allowed us to provide a more thorough description and evaluation of the field, and evaluate the contributions of different studies to the review objective. Manual searching of bibliographies was conducted (by MB) on included records from the initial set of records retrieved through database searching (this included eligible review articles, from which relevant records were identified but were not themselves included in the final set for data extraction). 70 records were retrieved through this method which were passed to the screening process for inclusion/exclusion. This involved a three-step process of title, then abstract, then full-paper screening. Results were screened for irrelevant articles in relation to questions derived from inclusion/exclusion criteria (see Box 1). Results were double-screened, first by one author (MB) and then by a second co-author (allocations were divided evenly between SS, CR, CA, and KT). Disagreements between initial two screening co-authors were resolved through third review by a different co-author (allocations were divided between (SS, CR, and CA; see Figure 1).

[INSERT TABLE 1]

[INSERT TABLE 2]

[INSERT TABLE 3]

[INSERT FIGURE 1]

Data extraction

Data extraction involved two processes. Firstly, inductive content analysis was conducted on retrieved studies in order to identify common features relating to study foci and results, using the Nvivo software package (v12) [26]. Analysis of studies was undertaken by one author (MB), who developed a provisional taxonomy of categories. These were presented to the author group for discussion (MB, SS, CA, CR, LB and KT), after which the four categories were agreed. Secondly, data on method, study design, sampling, measures and instruments used, and findings relevant to partner involvement in treatment-related decision making in clinical consultations were extracted by one author (MB) and double-checked by a second author (SS).

Quality assessment

This study used two main approaches to quality assessment. Firstly, assessment of quality for included studies was conducted using the Quallsyst tool, a widely used framework that provides scoring systems for both qualitative and quantitative methodologies, allowing us to evaluate the range of approaches utilised in the included papers [27]. Assessment was undertaken by one author (SS), with a second review performed by one other co-author (MB) on 50% (n=7) of the included studies. Agreement between raters (where both gave the same score, and measured by Cohen's Kappa) was 0.86, indicating 'almost perfect' agreement using Landis and Koch's criteria for interpretation of the metric, and disagreements resolved through discussion [28]. Full results are reported in Additional File 1. Secondly, specific observations on methodological and reporting quality were made by assessors during data extraction, and these are described within the categories identified in the results section.

Results

Our search strategy identified 2442 records across all repositories, which was reduced to 2258 after duplicate removal. After title and abstract screening, this number was reduced to 168 records which were passed to full paper assessment, of which 153 were excluded. Fourteen papers met the criteria for review, all of which were cross-sectional in study design [20,21,29–40]. Studies were not required to be direct observations of consultations, or to include all three members of the triad as participants (e.g. satisfaction surveys involving partners and patients relating to role preferences in triadic communication would be included).

Study settings, methodology, and quality assessment

Clinical contexts for included studies were: prostate cancer (six studies [30,32,34,36,37,39,41], geriatric primary care (three studies [20,21,38]), audiology (three studies [29,35,40]), and obstetrics (two studies [31,33]). There were eight studies in which partners were part of the main focus of the study [30–34,36,37,39], while the remaining six involved partners as a sub-group of companions [20,21,29,35,38,40]. Three studies did not explicitly quantify number of partners when reporting the demographics of their study sample, but instead reported them as part of wider groups such as 'companions' or 'family members'. However, these were included due to indications of partner involvement in reporting of findings: one due to 13 of 17 companions ('family members') being identified as spouses [40]; another due to 15 of 17 companions being identified as spouses [29]; the other due to analysis of interview extracts making specific reference to spouse-specific behaviour in consultations [35].

Data collection methods involved: semi-structured interviews (in one study by telephone [33], and a further three in person [32,35,37]), analysis of video (three studies [29,34,38]) or audio (three studies [20,21,40]) recorded consultations, and surveys using closed measures (three studies [30,36,39]). In one additional case, the method was described as a 'a structured dialogue based on client-centred psychotherapy', and it was not possible to identify from the information presented whether this involved dyadic/triadic interviews, or focus groups [31].

Analytical approaches used in included studies were: thematic and content analysis of interview data (four studies [31,33,35,37]); conversation analysis (one study using video data [34], another using audio-only data [40]); the Roter Interactional Analysis System (RIAS [42]) used to analyse video data (one study [29]) and audio-only data (one study [21]); analysis of video [38] and audio-only [20] recordings of consultations using bespoke behaviour coding instruments; descriptive and inferential statistical analysis of quantitative data from survey instruments (one study using the SF-12 scale [43] as a measure of physical and mental health [36], one using the Control Preferences Scale (CPS [44]) to measure information and decision preferences [39], and two using bespoke survey instruments

[30,39]). Overall, six studies involved direct observation of triadic communication in clinical settings [20,21,29,34,38,40], while the remainder made use of retrospective reports [29–33,35–37,39]. Quality assessment scores (determined using Quallsyst, with scores towards 1 indicating higher quality) ranged from 0.6 – 0.9 for qualitative methods (mean = 0.76), and 0.5 – 1 for quantitative methods (mean score = 0.85, see Additional File 1).

Study findings

Findings related to partner involvement in treatment related decision making in triadic clinical consultations were organised around four categories: *descriptions of partner role and behaviour* (eight studies [20,29–34,37,38,40]; *role intentions of partners* (four studies [21,30,39,45]); *relationship between partner and patient behaviour* (three studies [30,31,34]); and *relationship between HCP and partner involvement in triadic consultations* (four studies [32,35,36,40]).

Category 1 - Descriptions of partner role and behaviour

Most analyses in this category described general types of role or behaviour, rather than the communicative mechanisms through which they were enacted (that is, authors tended to describe observed behaviours in terms of their results (e.g. taking a dominant role), rather than the processes through which they were enacted (e.g. interruption, refusal to cede the floor to another speaker). Three studies described direct observation of partner roles in clinical consultations relevant to treatment related decision making and gave qualitative descriptions of types of roles and behaviours in which partners engaged. Huber et al. (2016) conducted conversation analysis of pre-operative counselling for radical prostatectomy involving patient, partner and HCP triads [34]. Their qualitative analysis described examples of emotional support and helpful contributions by spouses, however a tendency of partners to interrupt patients were observed, as well as their taking a ‘dominant’ role over patients in some cases [34]. In addition, difference of opinion occurred when pros and cons of a nerve-sparing approach (to surgical intervention) were discussed [34]. Elsewhere, Ekberg et al. (2015) explored how family members (the majority of whom, 13 of 17, were partners) were involved in audiology appointments with older people, using conversation analysis of video-recorded consultations [40]. They described several strategies through which partners would select to speak, including ‘responding to questions from the audiologist which were directed at the client’, ‘self-initiating expansions on clients’ turns’ and ‘self-initiating questions’ [40]. In earlier work, Coe and Prendergast (1985) examined the formation of ‘coalitions’ (in which ‘two members of a triad adopt a common strategy in contention with the third member’) through analysis of audio-recordings of patient-physician-partner encounters [20]. They described an example in which an elderly male patient attempted to join with the physician to change the medication schedule that was managed by his wife. Initial exchanges established his wife’s detailed keeping of records and adherence to the prescribed times of administration; however, the physician was observed to side with the patient and restructures the timing of medication, before reviewing and checking the wife’s understanding of new timings [20].

Two studies drew on direct observation of consultation settings to give quantitative descriptions of role and behaviour types exhibited by partners. Clayman et al. (2005) explored ‘autonomy-related-behaviours’ of partners, and their effect on decision making in geriatric primary care [38]. ‘Autonomy-related’ behaviours are here defined as those that facilitate: patient understanding (e.g. asking questions of the clinician); patient involvement (e.g. asking the patient’s opinion); and/or development of the clinician’s understanding (e.g. by elaborating on relevant aspects of the patient’s medical history) [38]. The authors noted that spouses as well as children of patients were more likely to engage actively in decision-making than other relatives and friends [38]. Elsewhere, Grenness et al. (2015) examined communication patterns during history taking portions of audiological rehabilitation

consultations involving patient-partner-HCP triads [29]. They observed that most common partner utterances were attempts at building a relationship (52%), followed by information giving (41%), activation and engagement (3%), and question asking (1%) (although the authors noted that companions asked less than one question on average for the duration of the history) [29].

Five studies explored roles and behaviours of patients retrospectively. Hodgson et al. (2016) conducted interviews with women and male partners six weeks after diagnosis of fetal abnormality, in order to explore decision making regarding termination of pregnancy [33]. In this study, Male participants described being present at the time of diagnosis and invasive procedures, making decisions about results disclosures, and supporting their partner in decision making with respect to abortion [33]. In earlier work, Schuth et al. (1994) explored parents' needs after diagnosis of fetal malformation, using what they describe as 'a structured dialogue based on client-centred psychotherapy' between patients and researchers [31]. These processes resulted in a number of recommendations from parents with respect to partner involvement: that they should be included equally with the woman during the examination, communication of the diagnosis, and explanation; that they should be present during the examination; and that the doctor should allow time for the woman's or the couple's questions and expressions of feelings, and time for sensitive sharing of the sudden crisis [31]. Elsewhere, Le et al. (2016) conducted interviews with 15 men diagnosed with early stage, localised prostate cancer and their partners, in order to explore the acceptability of active surveillance as a treatment option [37]. They noted that all couples described similar sequences of a highly emotional initial reaction and desire to be rid of the cancer, information seeking, and decision making throughout the process (including consultations) [37]. Srirangam et al. (2003) also investigated the influence of partners on treatment decision making for early-stage prostate cancer using bespoke questionnaires sent to partners [30]. Here, 88% of participants reported active involvement throughout the process, identifying information-gathering and emotional support as their primary roles [30]. Earlier work by Sinfield et al. (2008) explored experiences of prostate cancer patients and their partners through retrospective interviews, noting that partners 'usually accompanied the patients when they attended the hospital for further tests even though they had not been invited or encouraged to do so by the family physician or the hospital' [32].

Category 2 - Role intentions of partners

Role intentions here refers to the aims of partners with respect to their involvement in triadic clinical encounters, and this was explored in four studies. Ishikawa et al. (2005) explored communication patterns in relation to physician-elderly patient-companion triads in Japanese geriatric clinical encounters, utilising both direct observation of consultations (audio data) and pre-post questionnaires exploring role intentions and experiences of both patients and companions [21]. The authors noted that older companions and companions who were spouses of the patient had lower communication role intentions than younger, adult child companions [21]. Davison et al. (2002) used a bespoke information preference survey instrument, and the Control Preferences Scale (CPS) to explore information and decision preferences of men diagnosed with prostate cancer and their partners [39], in which they noted that the majority (55%) of partners wanted to play a collaborative role in treatment decision making [39]. In their retrospective investigation of prostate cancer treatment decision making, Srirangam et al. (2003) noted that most partners deliberately chose not to influence the patient's final decision (across the pathway, including the consultation) [30]. Elsewhere, Sinfield et al. (2008) noted that partners of men diagnosed with prostate cancer were keen to support the patient by accompanying them and asking questions about issues that they felt the patient was unlikely to raise [32].

Category 3 - Relationship between partner and patient behaviour.

Descriptions of relationships between partner and patient behaviour also tended towards general descriptions of associations between behaviours or descriptions of single-case examples. Three studies explored relationships between partner behaviours and those of patients, two of which related to prostate cancer. Huber et al. (2016) observed that: patients whose spouse was present at the consultation 'tended to have a more averted posture (50% vs. 25%, $p = 0.04$) and tended to speak less often (5% vs. 8%, $p = 0.02$)'; that 4 of 14 consultations involved spousal dominance where partners spoke more frequently than patients; and that in one case the spouse appeared to influence the patient's final decision with respect to treatment (nerve-sparing prostatectomy) [34]. Srirangam et al. (2003) recorded partner's self-assessed influence factor on the patient's final decision (which included the consultation as part of the decision pathway) on a linear visual scale of 0 (no influence) to 10 (major influence), and reported the mean (median, SD) self-assessed influence factor was 4.8 (5, 3.4) [30]. The authors note that responses were at the extreme ends of the scale, with 11% of partners claiming to have had a major influence (score 10) and 22% feeling that they had no influence at all on the final decision (score 0) [30]. Elsewhere in their investigation of parents' needs after diagnosis of fetal malformation, Schuth et al. (1994) observed that a majority of women indicated that the greatest help for their adjustment at the moment of diagnosis was the presence of their partner, who helped them interpret the doctor's information and avoid misunderstandings [31].

Category 4 - HCP-partner interactions

Studies in this category explored both HCP attitudes to partner involvement, and related communicative actions of HCPs in clinical triads. Four studies explored the relationship between HCP behaviour and/or attitudes, and partner involvement in triadic consultations relevant to treatment-related decision making (two of which involved audiological consultations, the other two related to prostate cancer). Meyer et al. (2015) explored audiologists' perceptions of family member involvement in hearing rehabilitation through interviews (approximately 50% of responses reported in the published study directly referenced spousal involvement) [35]. Audiologists reported supporting spouses to take an active role in encouraging rehabilitation, and encouraged their participation in rehabilitation as a 'joint effort', noting that lack of spousal support for rehabilitation interventions (such as hearing aids) could affect patient engagement [35]. In contrast, Ekberg et al.'s (2015) conversation analytic study of audiological consultations indicated that when family members participated in the interaction, audiologists typically responded by shifting the conversation back to the client [40]. In relation to prostate cancer, Zeliadt et al.'s (2011) statistical analysis (multivariate models) of retrospective survey data investigating provider and partner interactions in treatment decision making (separate surveys completed by patients and partners respectively), indicated that provider encouragement of partner participation (as rated by the partner) was associated with higher partner satisfaction (odds ratio 3.4, 95% CI 1.4–8.4) [36]. Finally, Sinfield et al. (2008) found that some interview respondents who were partners reported their concerns were not being taken seriously by specialist clinicians, that they were perceived as trouble (by the specialist clinician), and that the specialist gave the impression that they did not wish to be questioned [32].

Discussion

The aim of this systematic review has been to explore how partners are involved in treatment related decision making within triadic clinical encounters. As previously indicated, in 2013 Laidsaar-Powell et al. observed that explorations of the influence of patient-companion relationship quality on triadic clinical encounters has been 'very limited', and that 'no studies [had] identified characteristics and behaviours of types of third parties (e.g. spouse vs. adult child) [14]. The authors identified a need for greater focus on companion roles in research literature, citing a tendency for homogenous

characterisation of different relationships under the single term of ‘companion’ (or other synonym) [14]. The findings of this review indicate that the situation remains broadly consistent with this description.

The included studies present a range of descriptions of partner involvement in clinical consultations relevant to decision making across a broad spectrum of treatments. While the current review indicates that partners are often active participants in consultations involving treatment-related decisions, the heterogeneity of study foci, methods, and findings indicates that this remains an area in need of research attention. We now discuss these issues with respect to review findings presented above, and their implications for future investigations.

The need for further investigation of mechanisms of decision making within consultations.

There remains a lack of investigation of communicative processes, the mechanisms through which partner involvement in decision making occurs, and the implications of involvement for consultation outcomes. This has been observed elsewhere in extant literature both included in, and external to, the present review. In their 2013 systematic review, Laidsaar-Powell et al. noted that: ‘to date, no studies have identified the characteristics and behaviours of different types of third parties (e.g. spouse versus adult child)’ [14]. Elsewhere, Wolff et al. (2011) note in their survey investigation of family member accompaniment of older adults to geriatric primary care consultations, that: ‘[to the knowledge of the authors]...the extent to which families already assume relevant “coach” functions and the potential to further develop family companions’ skills to motivate patient engagement in treatment decisions and self-management has been unstudied’ [46]. Studies of clinical communication can address this gap in knowledge through systematic investigation of processes and features of interaction affecting information seeking and decision making behaviours, that may go unnoticed and/or unremarked *in situ*. For example, Wade et al. (2009) explored communication between patients and clinicians within a randomised controlled trial (RCT) for treatment of localised prostate cancer, in which patients were randomized to one of three treatments (i.e. radical surgery, radical conformal radiotherapy, or active monitoring) following diagnosis [9]. The authors noted that recruiter-led encounters often afforded fewer opportunities for exploring and addressing patient beliefs and concerns when compared with more patient-led exchanges [9]. In addition, they noted that progressive changes to recruiter behaviour which increased opportunities to explore patient beliefs (including challenging incorrect beliefs about prostate cancer and treatment) led to an increase in patients who agreed to participate in the trial, and also then agreed to accept the treatment randomly allocated to them [9]. The study thus stands as an example of how descriptions of process can reveal points of intervention for service development (e.g. by informing clinical communication training).

With the exception of Coe and Prendergast’s (1985) example of coalition formation in relation to medicines management, no studies included in this review focused specifically on the interactional processes leading up to decisions taken in consultation settings [20]. This was the case even in studies undertaking direct observation of triadic communication. For example, in Huber et al.’s (2016) study, the observation that patients accompanied by partners ‘tended to have a more averted posture (50% vs. 25%, $p = 0.04$)’ does not in itself clarify the effect that this activity had on triadic communication and decision making processes [34]. Direct alignment in front of one party within a triad could, for example, be inappropriate depending on the relative distance of partners and patients to the HCP (that is, direct alignment with one participant may also result in a move away from alignment with others). The analysis as presented gives little basis on which to establish the relative importance of this observation and is indicative of the lack of detailed attention paid to how specific communicative

mechanisms relate to the outcomes of encounters. The value of such observational work consists not only in descriptions of process, but also in their role in contextualising findings from studies involving self-reported attitudes or experiences. This is illustrated in the contrasting findings of Meyer et al. (2015) and Ekberg et al. (2015) (described in category four above), in which the intentions of audiologists to facilitate partner involvement described in the former were contrasted with behaviours observed to restrict partner participation in the latter [35,40]. Highlighting potential asymmetries such as these is also important in understanding the points in procedures where the findings of communicative research in healthcare settings may be applied (that is, by understanding where intentions and actions may diverge, researchers and audiences in healthcare settings may be better placed to design interventions, such as communication training).

One factor contributing to this gap among studies here described was a focus on the broader decision-making pathway, of which the consultation was one part. For example, Le et al. (2016) noted that none of their participants made a treatment decision regarding prostate cancer in the same consultation in which they received the diagnosis [37]. While studies of this type are helpful in contextualising the consultation with respect to wider pathways, they often rely on retrospective investigations of patient and partner experience, which may exclude subtler mechanisms of interaction that are not readily visible or well-remembered by participants (e.g. length of micro pauses after delivery of a block of information by a clinician). In addition, most retrospective studies tended to involve only patients and/or partners, and so removed the direct contribution of clinicians.

Issues of heterogeneity in description of partner participants.

Limited availability of literature on partner involvement in decision making in triadic consultations appears to result not only from the lack of studies focusing on the specific topic, but from limitations in reporting of studies that focus on adjacent topics or wider categories of participants. Of the 153 papers excluded at the stage of full paper assessment, 77 were excluded due to inability on the part of assessors to identify partners within wider groups (e.g. ‘companions’ or ‘family members’). Another issue with reporting that limited inclusion was a smaller number of studies in which partners were identified as a group but were not distinguished in their involvement in either triads or larger groups (such as those involving one or more additional adult children). The authors of this review believe that a much greater number of papers may have been eligible for inclusion if authors had been more detailed and systematic in their description of participant groups, and the relationship of this category to their findings.

Exploring the distinct nature of partner involvement.

Many included studies gave general descriptions of roles and behaviours adopted by partners in triadic consultation settings (e.g. interruption or provision of information), but did not explore whether these roles and behaviours were partner-specific (i.e. that they are a distinct feature of this companion type). Echoing Lidsaer-Powell et al. (2013), Hodgson et al. (2016) noted in their retrospective interview-based investigation of couple’s experiences relating to diagnosis of fetal abnormality that: ‘male partner experiences should be further researched to allow support and care to meet their needs after prenatal diagnosis’ [33]. While studies such as Hodgson et al.’s (2016) may be constrained by remit and resources in terms of investigation of partners as a sub-group, more detailed reporting of sub-groups may allow for future review and synthesis activities to address this gap.

Future directions in investigation of partner involvement in treatment-related decision making in triadic clinical encounters.

Based on the areas identified above, we propose the following questions for future research: firstly, is the nature of partner involvement as distinct from other participant types, and to what degree do

these distinctions hold across clinical contexts? Second, how are these distinctions related to processes of decision making that occur within clinical consultations? Thirdly, how does partner involvement within a triad differ from involvement in other groupings (for example, patient-HCP dyads or more numerous groups such as quadratic or greater interactions involving one or more additional adult children)? Research in other areas of clinical communication has shown that detailed attention to the issues raised here, particularly with respect to exploration of communicative mechanisms through direct observation, can inform interventions that support effective communicative strategies [2,9,47]. Further research in the areas here identified thus offers the potential to extend such benefits to interventions that support effective partner involvement in shared decision making with respect to the clinically situated triad. Such studies would also provide material to support theorisation of partner involvement in order to identify common factors that constrain or facilitate related processes across diverse settings (and thereby inform design of both interventions and further research).

[Situating the consultation within the wider decision-making pathway – contributions of retrospective report and direct observation studies.](#)

The research directions proposed here reflect our focus here on interactions within the consultation setting. Similarly, our evaluation of the contributions and limitations of the diverse range of methods used in included studies is guided by this focus, and as such we have emphasised the importance of further studies involving direct observation of triadic clinical interactions. It is however important to stress that while these are often important sites for information seeking and provision, as well as deliberation and decision-making, such processes also take place within a wider pathway (e.g. a conversation about prostate cancer options involving a patient-partner-HCP triad may occur subsequent to information seeking online, and precede further conversations at home involving the patient-partner dyad or other family members, before a decision is made later). Detailed consideration of wider pathways is beyond the scope of this review; however it is important to note that while methods using retrospective reports may have limitations in identifying certain practical aspects of communicative preferences and behaviours, they remain an important set of tools for across treatment decision pathways. For example, they may be particularly important in relation to preference identification, where reflection by patients (and potentially partners/HCPs) may provide important insights into how preferences for treatment emerge over time, and what processes affect this. Understanding decision making processes that occur as patients navigate what in many cases will be complex healthcare systems, involving multiple institutions and HCPs, will likely require a range of methods incorporating both direct and retrospective observations.

[Conclusion](#)

This review has identified general categories of investigation relating to partner involvement in treatment-related decision-making, pursued as either main or sub-foci in included studies. While existing research has provided general descriptive accounts (both qualitative and quantitative) of partner involvement in clinical encounters with respect to treatment-related decision making, there remains a lack of detailed investigation of communicative processes and specific characteristics of triads involving partners (as distinct from other companion groups). The review has identified a lack of investigation of how communicative processes relate to consultation and decision outcomes and has identified areas for future research. Attention to these areas can inform future interventions aimed at supporting partner involvement in treatment-related decision making in triadic clinical encounters.

Declarations of interest: none

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Tables

Selection criteria	Inclusion	Exclusion
Population	<p>Patients making a decision between two or more treatments (curative intent, management or palliative) in consultation settings.</p> <p>Partners (married, co-habiting, significant others).</p> <p>≥ 18 years old (partners and patients)</p> <p>Any health related condition.</p> <p>Partner and patient must have mental capacity.</p>	Patients/partners lacking mental capacity.
Intervention(s)	<p>Treatment related decision making in clinical consultation settings involving a triad between patient, partner, and HCP.</p> <p>Data relevant to treatment decision making, such as information on treatment options (whether direct observation (e.g. audio recording) or retrospective reporting (e.g. interview with participants)).</p>	Lack of direct observation of co-present encounters would not exclude a study.
Comparison(s) or Contexts	In-person consultations.	<p>Remote consultations (e.g. video or telephone consultations).</p> <p>Written correspondence.</p>
Outcome(s)	[none – i.e. outcomes of decision making, or results of decisions taken (e.g. clinical outcomes) are not inclusion criteria for this review. While outcomes such as satisfaction with decision	[none – lack of specific outcomes criteria would not exclude a study]

	making may be relevant, they are not a requirement of inclusion]	
Study design(s)	Research protocols RCT and feasibility trials Qualitative Quantitative Observational Methodological (including development work)	Study design would not exclude a study
Publication type(s)	Peer reviewed original research article or review	Non-peer reviewed literature Not original research or review
Publication year(s)	No limits	
Language(s)	English	Not English

Table 1 - Inclusion and exclusion criteria.

Database	Terms (Boolean format with repository-specific term groupings)	Limits	Records retrieved	Date of search
Medline	((MH "Spouses") OR boyfriend* OR couple* OR girlfriend* OR husband* OR marriage OR married OR partner* OR significant other* OR spous* OR wife OR wives OR triad*) AND ((MH "Decision Making+") OR (MH "Patient Participation") OR (MH "Physician-Patient Relations") OR (MH "Professional-Family Relations") OR (MH "Professional-Patient Relations+") OR patient participation OR preference sensitive decision making OR preference-sensitive decision making OR shared decision making) AND ((MH "Ambulatory Care+") OR (MH "Appointments and Schedules+") OR (MH "Outpatient Clinics, Hospital+") OR (MH "Pain Clinics") OR (MH "Referral and Consultation+") OR appointment* OR clinic OR consultation)	English Language; Age Related: Adolescent: 13-18 years, All Adult: 19+ years	1228	13/07/2018
CINAHL	((MH "Significant Other") OR (MH "Spouses") OR boyfriend* OR couple* OR girlfriend* OR husband* OR marriage OR married OR partner* OR significant other* OR spous* OR wife OR wives) AND ((MH "Consumer Participation") OR (MH "Decision Making+") OR (MH "Physician-Patient Relations") OR (MH "Professional-Family Relations") OR (MH "Professional-Patient Relations+") OR patient participation OR preference sensitive decision making OR preference-sensitive decision making OR shared decision making) AND ((MH "Ambulatory Care Facilities") OR (MH "Appointments and Schedules+") OR (MH "Community Health Centers") OR (MH "Nurse-Managed Centers") OR (MH "Outpatient Service") OR (MH "Outpatient Service") OR (MH "Pain Clinics") OR (MH "Referral and Consultation+") OR (MH "Rural Health Centers") OR appointment* OR clinic OR consultation)	English Language; Peer Reviewed; Exclude MEDLINE records; Age Groups: Adolescent: 13-18 years, All Adult	209	13/07/2018
AMED	(boyfriend* OR couple* OR girlfriend* OR husband* OR marriage OR married OR partner* OR significant other* OR spous* OR wife OR wives OR triad*) AND (decision making OR patient participation OR preference sensitive decision making OR preference-sensitive decision making OR shared decision making) AND (appointment OR clinic OR consultation)	n/a	27	13/07/2018
EMBASE Classic + EMBASE	(boyfriend*.mp.OR couple*.mp.OR exp spouse/OR girlfriend*.mp.OR husband*.mp.OR marriage.mp.OR married.mp.OR partner*.mp.OR significant other*.mp.OR spous*.mp.OR wife.mp.OR wives.mp.OR triad*.mp.) AND (exp decision making/ OR exp doctor patient relation/ OR exp human relation/ OR exp patient decision making/ OR exp patient participation/ OR patient	Abstracts and english language and exclude medline	255	13/07/2018

	participation.mp. OR preference sensitive decision making.mp. OR preference-sensitive decision making.mp. OR shared decision making.mp.) AND (appointment*.mp. OR clinic.mp. OR consultation.mp. OR exp consultation/ OR exp hospital/ OR exp outpatient/)	journals and (adult <18 to 64 years> or aged <65+ years>)		
PsychINFO	(boyfriend* OR couple* OR DE "Significant Others" OR DE "Spouses" OR DE "Husbands" OR DE "Wives" OR girlfriend* OR husband* OR married* OR partner* OR significant other* OR spous* OR triad* OR wife OR wives) AND (appointment* OR clinic OR consultation OR DE "Clinics" OR DE "Child Guidance Clinics" OR DE "Psychiatric Clinics" OR DE "Walk In Clinics" OR DE "Professional Consultation" OR DE "Business Consulting" OR DE "Consultation Liaison Psychiatry") AND (DE "Client Participation" OR DE "Decision Making" OR DE "Choice Behavior" OR DE "Group Decision Making" OR DE "Management Decision Making" OR patient participation OR preference sensitive decision making OR preference-sensitive decision making OR shared decision making)	Peer Reviewed; English; Age Groups: Adulthood (18 yrs and older)	653	13/07/2018

Table 2 - Search terms, limits, and records retrieved for each repository.

Q1 - Is there a focus on partner involvement?
Q2 - Is the patient ≥ 18 years old?
Q3 - Does the patient have mental capacity?
Q4 - Does the paper involve a focus on triadic co-present interaction?
Q5 - Does the paper include a focus relevant to treatment-related decision making?

Table 3 - Screening questions for retrieved records