Photo by Tima Miroshnichenko: https://www.pexels.com/photo/father-pouring-milk-on-a-bowl-6337159/

A LITERATURE REVIEW OF FATHER-SPECIFIC INTERVENTIONS ON FATHERING SELF-EFFICACY

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ABSTRACT

The roles of fathers have changed over the years and fathers are now increasingly involved in caregiving for their child, it is therefore important that they are confident in their fathering role. Fathering self-efficacy refers to confidence in one's fathering abilities. This paper reviews 10 studies that have used father-specific interventions to increase self-efficacy in fathers, and their effectiveness. The review identified that father-specific interventions are nuanced and require certain aspects for effectiveness, such as a male facilitator, video-feedback, strength-based feedback, professional support, peer support, and experiential activities. Due to several methodological issues discussed in the review, the application and generalisability of the interventions should be interpreted with caution. Future research suggestions include developing father-specific measures for self-efficacy, exploring why males are often viewed as second class parents, and how our view of fathers has tended to be corrupted by ideological assumptions about males and masculinity popular in contemporary culture.

Keywords: fathers, men, parenting interventions, self-confidence, self-efficacy

INTRODUCTION

Fatherhood

The roles of fathers today are vastly different than previous generations (Yeung et al., 2001). Previously, a nuclear family consisting of a married mother and father with children was commonplace, however over the years, family structure has changed to now include same-sex couples, joint families, single mothers, and single father families amongst others (The Centre for Social Justice, 2020). Same-sex couples choose to have children via a variety of methods including adoption, surrogacy and insemination (Department for Education, 2018); family structure has been found to influence parenting practices, for example some research suggests that household chores and parenting duties are more equally shared in same-sex couples than in heterosexual couples (Biblarz et al., 2010).

Other changes in societal norms, such as one partner working outside of the home, expectations and behaviours have meant that fathers are expected to be increasingly involved in raising their children (Bianchi et al., 2006; Cornille et al., 2005). In previous generations, the main emphasis of father's contribution to the family was financial (Pleck et al., 1997), however increasingly, contemporary fatherhood focuses on caregiving and emotional labour (Pleck, 2010). Lamb et al. (1985) proposed a typology of father-involvement consisting of three parts: engagement, accessibility, and responsibility. Engagement involves the direct interaction of the father with the child, accessibility relates to both the physical and psychological availability of the father to his child, and responsibility refers to providing for the child.

Research has shown that father involvement and closeness positively contribute to the psychological well-being of their child (Van wel et al., 2000; Amato et al., 1999), independence (Rosenberg et al., 2006), cognitive development (Bronte-Tinkew., 2008) and academic success (Allen et al., 2007; Anthes., 2010). Father-involvement has also been linked to intergenerational transmission of attitudes and behaviours (Giménez-Nadal et al., 2019, Pieroni et al., 2018), such as less stereotypical views of gender roles (Allgood et al., 2012), less risky behaviours and other externalising behaviours (Anthes et al., 2010; Su et al., 2017).

Self-efficacy

Self-efficacy can be defined as 'a situation specific form of self-confidence' (Stevenson, 2010). Despite the increased involvement of fathers in child-rearing, fathers continue to experience low self-efficacy in their role (Ferketich et al., 1995) and are underrepresented in parenting self-efficacy literature (Sevigny et al., 2010). One such reason for this is that current fathers were brought up in an era where their fathers were not expected to be involved in child-caregiving, as such, today's fathers have little understanding or experiences to draw upon (Henwood et al., 2003; Smith et al., 2014) which can result in difficulties embodying a positive paternal role-model (Paschal et al., 2011). Adding to this, although societal expectations have changed of fathers in their care-giving role, attitudes are incongruent; Featherstone (2009) stated that social and healthcare services perceive fathers as either absent or disinterested which could influence their

treatment of fathers as secondary to mothers and therefore overlooked by the healthcare system. Recent attitudes towards fathers are consistent with the above; for example, in the recent COVID-19 pandemic, fathers in the UK were excluded from maternity care (Andrews et al., 2022), leaving them feeling insignificant, excluded, and ostracised (Nespoli et al., 2021; Stacey et al., 2021; Vasilevski et al., 2021). This highlights the need for professionals and services to actively involve fathers in child-related experiences to improve their self-efficacy, as fathers' perceptions of their self-efficacy affect not only their parenting ability and acquisition of new skills (Bandura, 1977, 1982), but also satisfaction with the parenting role and as such the degree of effort put into parenting (Reece et al., 1998; Hudson et al., 2001).

Parenting programs

Parenting programs to increase self-efficacy have been widely researched (Begle et al., 2011; Webster-Stratton et al., 1996; Sanders, 2008). In a meta-analysis by Spencer et al. (2020), it was found that parenting programs significantly increase parents' self-confidence in their parenting skills as well as parent-child relationship, positive child behaviour and satisfaction with parenting. Historically, parenting interventions have focused on mothers' needs (Panter-Brick et al., 2014) and where interventions have been targeted for both the mother and father, fathers' attendance has been low in comparison to mothers (McKee et al., 2021; Lundahl et al., 2006); this may be because fathers feel the interventions are not targeted for them (Sicouri et al., 2018) which may be a result of intervention material and recruitment strategies using general approaches, rather than father-specific. Whilst father-specific interventions exist, they are rarely reported (Havighurst et al., 2019)

CURRENT REVIEW

Objectives

This review explores the effectiveness of father-specific interventions in increasing fathering self-efficacy. Previously reported father-specific interventions have focused on a 'deficit' view, where the primary aim of the intervention has been to reduce violence, domestic abuse or substance abuse (Cowan et al., 2019; Holden et al., 2010); the current review seeks to review studies, including the methodological quality, where the primary goal of the intervention is to increase fathers' self-efficacy. Fathers have only recently started to be represented in research about parenting self-efficacy, and while studies have shown that the characteristics linked to fathers' parenting self-efficacy are like those linked to mothers' parenting self-efficacy, important differences still exist (Gross et al., 1994; Reece et al., 1998; Leerkes et al., 2007)

The question to be answered in this review is 'What father-specific interventions are available in peer-reviewed literature and how effective are they?'. Clinical implications and recommendations for future research will be discussed along with strengths and limitations of the studies.

Methods

Search Strategy

An electronic search was conducted using 5 databases including MEDLINE, Cumulative Index to Nursing and Allied Health Literature Plus with Full Text (CINAHL), SPORTDiscus with Full Text, APA PsycInfo and APA PsycArticles on 30th January 2023.

A Boolean search was conducted using the text '(Father OR Dad) AND Group Intervention' to include studies involving groups or individual interventions. The term 'Father' was selected to ensure there was a broad definition (e.g., biological, father figures, and father surrogates). The term 'AND' was used to combine relevant search terms. To match the aims of this review, only peer-reviewed articles were included in this study from 2002 – 2023. The time-period limiters were put in place due to the changes in the conceptualisation of fatherhood over the last two decades, and the growing body of literature supporting the importance of fathers' active involvement in their children's lives (Lamb, 2010).

Selection of studies

A total of 964 studies were identified (MEDLINE=397, CINAHL=272, APA PsychInfo=265, SPORTDiscus=18, APA PsychArticles=12). After initial scoping of study titles, it was identified that some articles included animals, children, irrelevant studies and studies in languages other than English therefore the following limiters were applied to automatically exclude such papers:

- English language
- Age: 18 years and over
- Gender: Male
- Population: Human male (other population options included animals, females and inpatients)

Following the application of the above limiters, a total of 202 articles were identified, of which 12 were duplicates; the remaining 190 were then screened by their title and abstract to identify if they met the review's criteria. Microsoft OneNote was used to group together unsuitable articles, based on the exclusion criteria in Table 1.

The 190 paper's title and abstract were read to identify relevant papers. Of the 190 papers, 174 were excluded due to reasons such as not being relevant to the topic e.g. encouraging dads to support in breastfeeding or reducing smoking (n=47), interventions were not specific to the father e.g. couple-based (n=55), the study reported child outcomes or family outcomes only (n=27) and studies in which there was no intervention, or in which there was no measure of parenting confidence (n=16), these studies included those in which parenting skill may have been measured, but not parenting confidence. It was important to make this distinction as the current study is interested in the appraisal of the father's capability to engage in parenting tasks after the

intervention, rather than skill acquisition or improvement in skill only, as confidence cannot be implied through skill acquisition.

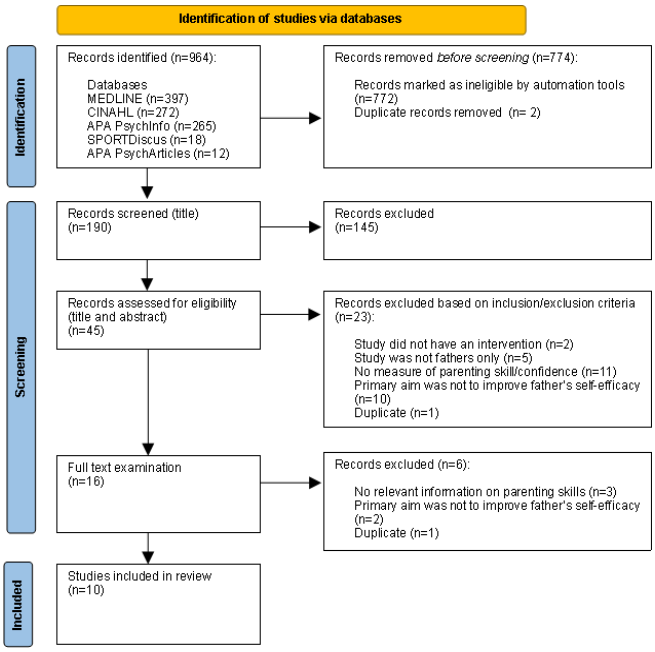
This left a total of 16 articles for full-text review. Using the Staffordshire University electronic search, the 16 full-text articles were extracted into a folder and their references were downloaded; all except 2 articles were readily available to download, Staffordshire University librarians were used for locating the remaining 2 articles. Microsoft excel was used to extract information about the interventions and measures used in the studies, during this process, a further 6 were excluded due to either no relevant information on parenting skills or measure of confidence (n=3), primary aim of the intervention was not improving parenting skills or confidence (e.g., communication about sex and vagal flexibility) (n=2) and duplicate (n=1). This left a total of 10 studies for this review.

Table 1. Exclusion and inclusion criteria

Inclusion	Exclusion
Must include an intervention	Grey literature and systematic reviews
Intervention must be targeted specifically for fathers	Results from intervention focus on child-outcomes or family-orientated outcomes e.g. child behaviour or relationship between father and partner
Must include a measure of parenting confidence	Primary aim of intervention is to reduce risk behaviours of father
Primary aim must be to improve fathers' confidence in parenting abilities	Couple-based interventions or interventions in which fathers and other caregivers attended the group together
Peer-reviewed articles in English language	

Figure 1 highlights the search strategy and details of excluded papers

Figure 1. *PRISMA Flow Diagram*



Quality Review

Consideration was given for using one quality appraisal tool across all studies in this review, however, as there is there is no quality assessment tool that can be applied equally well across all study types (Katrak et al., 2004), two quality appraisal tools were used, Down's and Black checklist for quantitative studies (1998) (appendix 1) and the Mixed Methods Appraisal Tool 'MMAT' for all other methods (Hong et al., 2018, appendix 2). Although the MMAT considers all the methodological designs in this review, it only consists of 7 questions per study type, 2 of which are screening questions. In comparison, the Down's and Black (1998) consists of 27 questions about the studies' internal and external validity, selection bias and power, offering a more thorough quality analysis. Further, 7 out of 10 of the studies in this review use quantitative methods, therefore the Down's and Black (1998) tool was used for a comprehensive analysis of these papers, and the MMAT covers all the other methodological designs (n=3) in this review.

For the current review, question 8 of the Down's and Black (1998) tool was removed across all 7 quantitative studies (appendix 1) as this is related to clinical trials which is not applicable to any of the studies in this review. For ease of interpretation, all 'yes' responses were given a score of 1, including the final question related to power which in the original checklist ranges from 0-5 depending on the sample size, therefore the maximum score was 26, instead of 32. Gearing et al (2009) and Raouna et al (2021) did not have control groups, therefore questions related to a control group were removed for these studies (Q5, Q13 and Q20-23), which gave a

total score of 20; yes (1), no (0) and unable to determine (0). The following scores have been suggested for the quality of the study: excellent (26-28); good (20-25); fair (15-19); and poor (14) (Hooper et al., 2008), however due the total score varying across all studies, a label of quality from poor to excellent has not been given, instead a percentage score has been given depending on the number of criteria met in the checklist.

For three studies (Lucas et al., 2021; Cornille et al., 2005; Gamboa et al., 2019) the Mixed Methods Appraisal Tool MMAT, (appendix 2) was utilised (Hong et al., 2018). As suggested by the MMAT guidelines, relevant questions for each study were considered, giving a total score of 7. A summary of all study scores in this review can be found in table 2 and appendix 3.

RESULTS

Overview of the studies

Ten of 202 articles met the inclusion criteria. Of these, 7 were quantitative (Lee et al., 2012; Gearing et al., 2008; Raouna et al., 2021; Chacko et al., 2018; Hudson et al., 2003; Havighurst et al., 2018; Magill-Evans et al., 2007), 1 was a case study (Gamboa et al., 2005), 1 used a mixed methods approach (Cornille et al., 2005) and 1 was qualitative thematic analysis (Lucas et al., 2021).

Eight of the interventions were group based (Gearing et al., 2008; Raouna et al., 2021; Chacko et al., 2018; Havighurst et al., 2018; Lucas et al., 2021; Cornille et al., 2005., Gamboa et al., 2019), with fathers having face-to-face access to other fathers. One of the interventions was based online and included a discussion forum where fathers could interact with other fathers about the intervention material (Hudson et al., 2003) and only one did not include any access to other fathers (Lee et al., 2012). Of all interventions, only two were completely individual based (Lee et al., 2012; Magill-Evans et al., 2007), with fathers being given material to consume individually (videotape feedback or booklet), however both had access to a professional to discuss the information i.e., home visitor and a nurse.

The studies in this review focused on interventions designed to improve fathering self-efficacy, which covers fathers' confidence and fathers' parenting skills. Many of the studies utilised newly developed interventions, however Raouna et al., (2022) used a well-established program 'Mellow Babies', which had previously been used for mothers. Cornille et al. (2005) also used a well-established program, 'The Dad's Project' however it had not previously been used for fathers in a prison setting. All other interventions were newly developed for the purpose of their study; an overview of the studies can be found in appendix 4.

CRITICAL APPRAISAL

Design and methodology

Quality ratings of the studies ranged from 46% to 92%, with seven studies scoring 70% or above (table 2). Designs of the studies included historical comparison (Lee et al., 2012), randomised controlled trial (Chacko et al., 2018; Havighurst et al., 2019; Magill-Evans), pre-

experimental designs (Cornille et al., 2005; Gearing et al., 2008), quasi-experimental repeated measures design (Hudson et al., 2003) focus group (Lucas et al., 2021) and secondary data analysis (Gamboa et al., 2019).

Of the qualitative studies, Gamboa et al. (2019) clearly reported the procedure and attempts made to ensure internal and external validity e.g., coding and comparisons completed by two researchers and discrepancies discussed, further, this study used triangulation for increased validity, digital recordings of discussions and written reports of father's experiences. However, there was no mention of reflexivity.

In comparison, Lucas et al. (2021) reported reflexivity and focused on their gender, female, which is an important characteristic, particularly in research about fathers. In both studies, a qualitative approach was appropriate to answer the research question. In Cornille et al. (2005) mixed methods study, the authors state that the Parental Attitude Research Instrument (Schluderman et al., 1977) was used, however no descriptive statistics are reported except z scores; the authors state significant differences were found pre and post intervention, but no such evidence has been presented for readers to investigate subjectively. Furthermore, the paper does not report themes or direct quotations from the semi-structured interviews or detail where these can be found, raising questions on validity.

Participants and recruitment

Five out of ten studies recruited fathers of children aged between 0 and 5 years (Lee et al., 2012; Hudson et al., 2003; Havighurst et al., 2018; Magill-Evans et al., 2007; Gamboa et al., 2019), one stated the children were 'young' (Chacko et al., 2018), one study reported the fathers in the study had children aged between 1 and 16 years (Lucas et al., 2021), one study's fathers had children with a mean age of 8.5 years (Raouna et al., 2021) and two studies did not report on the ages of the children (Cornille et al., 2005; Gearing et al., 2008). As interventions were aimed at improving father's self-efficacy, it is perhaps not unusual that six of the studies in this review recruited fathers of young children. Gamboa et al. (2019) deliberately invited a more experienced father to the groups for father knowledge-transmission, though the age of the child of this father is not reported. Eight of the ten studies used a community sample of fathers, whereas two used more specific samples; Cornille et al (2005) study recruited incarcerated fathers as the intervention was run across prison sites and Lee et al. (2012) recruited fathers from a NICU setting, as such, most of the samples in this review are representative of the target population, except the aforementioned two studies. However, caution needs to be applied when generalising results as only two studies (Gamboa et al., 2019; Cornille et al., 2005) used a non-white population, the remaining eight studies used a majority white sample and all participants in the studies in this review, except one (Chacko et al., 2018) spoke English as their main language. In more diverse fathers, intersections of identity, such as culture, parental/gender roles and interpretations of masculinity, may affect aspects such as group engagement and relatability to facilitators, which subsequently may impact fathering self-efficacy.

Quantitative sample sizes ranged from 14 – 87; studies with larger sample sizes (Havighurstet al., 2018; Magill-Evans et al., 2007; Coornille et al., 2005) were recruited from services with access to many fathers e.g., three male prison sites, schools and links with healthcare professionals who delivered routine home visits after the birth of the child. Despite larger sample sizes in these studies, the maximum in any intervention group was 87 in an RCT (Havighurstet al., 2018). Of the eight studies delivered in a generic community setting, four used recruitment strategies which would indicate low generalisability of the sample of participants. For example, participants were recruited from an existing men's group (Gearing et al., 2008), parent support groups, prenatal classes (Magill-Evans et al., 2007), and existing family support services (Chacko et al., 2018; Lucas et al., 2021). Recruiting from these groups induces issues of selection bias; participants are not representative of 'general' fathers as they are already seeking a form of support, this indicates they may already be open and more willing to improve their fathering skills or engage in the intervention.

Four out of ten studies did not recruit a control group due to difficulties with recruitment of fathers (Gearing et al., 2008; Raouna et al., 2021; Cornille et al., 2005; Gamboa et al., 2019). Raouna et al., (2021) intended and attempted to recruit a control group, however due to a low number of participants, this was not achievable. Gearing et al (2008) reported a change in recruitment strategy from 'passive marketing' to 'active community outreach' as they too struggled with recruitment.

Lucas et al. (2021) conducted a focus group for people who attended the Dads Group. It is likely that fathers who agreed to attend the focus group already found the intervention helpful. It may have been more useful to collect quantitative responses from all participants of the group or use a combination of subjective and objective measures of self-efficacy post intervention.

In Cornille et al. (2005) study, prison officers selected participants for the intervention, no other details about the selection of participants are given such as informed consent, therefore this raises concerns about ethics and biases in responses due to potential power dynamics in a prison setting. Power dynamics may also have played a role in the responses of participants from Raouna et al. (2021) study in 'Mellow Babies'. Fathers in this study were deemed 'at risk' (low family economic and psychosocial resources, such as poor mental health and substance abuse), and recruited by healthcare professionals, indicating a likelihood of them being open to safeguarding services for their child. Subsequently, this raises questions of social desirability in engagement of the intervention and self-reporting outcomes. The remaining eight studies reported that participants provided informed consent and did not appear to have confounding factors to participation.

Measures

Measures were varied across the studies and included the following; Fathering Ability in NICU (Lee et al., 2012), Family Assessment Measure (FAM-III) (Gearing et al., 2008), The Karitane Parenting Confidence Scale (Raouna et al., 2021), Dyadic Parent-child interaction

Coding System-R (Chacko et al., 2018), Infant Care Survey (Hudson et al., 2003), Parenting Sense of Competence Scale (Havighurst et al., 2018; Magill-Evans et al., 2007), Nursing Child Assessment Scale (NCATS), an observer rated questionnaire, sub-scales from Fathers' Parental Attitude Research Instrument and a semi-structured interview (Cornille et al., 2005). Lucas et al., (2021) utilised 2 focus groups for The Dad's Group and Gamboa et al. (2018) used thematic analysis to measure fathering self-efficacy after the Building Bridges to Fatherhood Program. Validated and widely used questionnaires were used across all quantitative and mixed-methods studies, except for Lee et al. (2012) who used a uniquely developed questionnaire for the purpose of their study.

Eight of the ten studies used self-report questionnaires and two used a combination of observer rated and self-report (Chacko et al., 2018; Magill-Evans et al., 2007). Self-report measures raise the question of bias, therefore potentially limiting the validity of the results. Social desirability may influence participant's responses, particularly in Magill-Evans et al. (2007), Lucas et al. (2021) and Cornille et al. (2005) in which the success of the intervention was being discussed directly with the participants and conclusions were being drawn about the fathers' confidence in their role as a father from their responses. Nonetheless, self-report measures could be seen as an integral part of father-inclusive practice and using other forms of measures, such as partners' ratings, may undo the work of validating the importance of the role of the father. Partners of fathers have previously rated father outcomes in studies (Opondo et al., 2016), one of which is from this review (Havighurst et al., 2018); this can perpetuate low self-efficacy in fathers as they may perceive their partners/mother of their child as more knowledgeable about their role as fathers than they are.

Data analysis

In quantitative studies, the statistical tests used to assess main outcomes were appropriate. All studies stated the significance level and the actual probability values, except in Hudson et al. (2003) who did not report exact probability values, highlighting lack of transparency. Of the seven quantitative and one mixed methods study, four did not report an effect size (Gearing et al., 2008; Lee et al., 2012; Hudson et al., 2003; Cornille et al., 2005) however all except one (Cornille et al., 2005) provided data on means and standard deviations from which the effect size was calculated by the author. For consistency, all studies effect sizes have been converted to Cohen's d.

In the two qualitative and one mixed method studies, only one reported reflexivity (Lucas et al., 2021). The lack of a statement of reflexivity in Gamboa et al. (2019) and Cornille et al. (2005) study raises questions about the credibility of the findings and further does not allow deeper understanding of the work (Dodgson, 2019). Cornille et al. (2005) is particularly poor in quality due to the lack of transparency in their results including themes, quotations and general lack of rigour in reporting results.

Publication Bias

Although studies from grey literature were not included in this review, a search was conducted to compare the literature to that of peer-reviewed articles. Searches indicate that a variety of father-specific interventions are being conducted, for example, digital parenting interventions for dads (Xie et al., 2023) and theses on play-based interventions, attachment-based parenting programmes, and interventions for disadvantaged fathers. When compared with studies in the current review, similar techniques are being used, such as experiential learning and video-feedback. Consistent with findings in the current review, often it can be difficult to recruit to interventions targeting fathers.

In addition to this, many programs exist in the UK for improving fathers' self-efficacy in parenting such as 'Dadvengers', 'Dads Rock', 'Leeds Dads', 'Dangerous Dads', 'This Dad Can', 'National Fatherhood Initiative' and 'The Fathers Right Movement, many of which are already using techniques employed in the studies in the current. In line with the findings of Lee et al. (2020), many father-specific interventions are being conducted but not reported, as such, there is a need for standardised evaluations and reporting of these programs.

Synthesis of Findings

The use of a narrative synthesis was deemed appropriate for this literature review as all studies entailed a varied approach to the intervention, characteristics of the fathers and outcome measures used to measure parenting skills and confidence. Father-specific interventions are still in their infancy, as such, a narrative synthesis approach allows one to focus on a wide range of questions and discussion points, not just the effectiveness of the intervention (Popay et al., 2006). Across all studies, three prominent areas were identified which will be discussed: 1) Delivery (including format) of the interventions 2) Activities within intervention to increase self-efficacy and 3) Effectiveness of the intervention.

Delivery of interventions

The studies were conducted in various countries, four of which were based in USA (New York, Nebraska, Chicago and Florida), two in the UK (Scotland and England), two in Canada, one in Australia and one in Taiwan. Although the interventions in which the countries were conducted were varied, the methods used in the interventions were similar as described in table 2.

Eight out of 10 of the interventions were delivered to fathers in 'generic' community settings, whereas two of the interventions were delivered to a specific group; one to fathers of babies in Neonatal Intensive Care Unit (Lee et al., 2012) and one to prison inmates (Cornille et al., 2005).

Five of the eight group-based sessions specified the number of sessions in the intervention, which ranged from 7 sessions to 12 sessions, with each session ranging from 2-2.5 hours. All interventions were delivered by professionals such as nurses, unspecified 'clinical professionals', unspecified practitioners, teachers, social workers and assistant teachers and program-trained individuals with a master's or PhD in Psychology or Social work. Gamboa et al. (2019) used peer-

led African American fathers and Cornille et al. (2005) did not report who delivered the intervention. Eight out of ten interventions were purposefully led by male facilitators so that participants could relate to the facilitator and as such feel comfortable engaging in the intervention and disclosing personal information.

In manualised programs, facilitators received training before delivering the intervention. Father-to-father local knowledge-transmission was used as an important tool within the interventions and as such group discussions were encouraged by facilitators, even if the groups were more task-focused.

Group-based interventions with other fathers are a strength in the eight studies of this literature review. Bennett et al. (2013) found that the 'group-based' element played an important role in improving the psychosocial functioning of parents. This is also supported by a systematic review of qualitative studies, where it was found that feeling accepted and supported by other parents, acquiring new skills and understanding in a psychologically safe environment led to increased confidence in dealing with challenging behaviour of their child and a reduction in feelings of guilt and shame (Kane et al., 2007). Peer support is a valued aspect of parenting programs.

Activities used to increase self-efficacy.

The interventions used a variety of activities to increase fathering self-efficacy. These methods included discussions, for example about masculinity, fathers' roles within the family, how the participants themselves were fathered, the meaning of fatherhood for them, communication, emotions and the fathers' role in their child's development.

Experiential exercises were used in some programs once the group participants were comfortable with each other; these exercises involved interacting with their children during the session for example reading books, completing homework together, singing songs to younger children, whereas other experiential exercises were for fathers to bond with one another through go-karting, facials and reading books. Video-feedback methods were commonly used in all except 4 studies (Lee et al., 2012; Gearing et al., 2008; Hudson et al., 2003; Lucas et al., 2021) in two ways, one where fathers were video-taped interacting with their child and strength-focused feedback was given, and second where fathers watched videos of either positive parenting or exaggerated parenting mistakes to facilitate discussion on parenting skills.

Video-feedback is a recommended approach in the NICE guidelines (NICE, 2016) and is a widely used effective strategy (Fukkink., 2008), however, with fathers already being treated 'secondary' to mothers, their use with fathers may feel more disciplinary than supportive. In Magill-Evan et al. (2007) study, fathers were videotaped in their home with a 5-month-old; this transition period is already known to be stressful. The 'use-of-self' was also encouraged in facilitators e.g., sharing their own experiences of being a father, with the aim of role-modelling to the participants and encouraging a safe-space for self-disclosure.

A detailed description of interventions for each study can be found in table 3.

Table 3. Detailed description of interventions to increase fathering self-efficacy.

No.	Author, country	Intervention name	Intervention description
1	Hudson et al. (2003) Nebraska, USA	New Fathers Network	This was an internet-based intervention consisting of 3 sections: 1. A library of information (approximately 300 files related to infant development and concerns of new fathers) 2. Discussion forums 3. Email access to Advanced Practice Nurses. This was primarily a social support intervention where new fathers could access support from other fathers and nurses, particularly to address any concerns or questions about their transition to fatherhood.
2	Magill-Evans et al (2007), Canada	N/A	In this intervention, the father was videotaped in his home (by a home visitor), teaching his baby to play with a toy. Immediately after, the tape was jointly reviewed by the father and home visitor, positive aspects of the interaction were praised and behaviour that needed refining was discussed. New information was shared in the form of a handout, followed by another scheduled visit one month later by the same home visitor. Handout one described the baby's cues and handout two was about how babies learn

			(attain the baby's attention, show and explain, give time for the baby to try and then praise). Each visit took approximately one hour.
3	Gearing et al (2008). Canada	Re: Membering Fatherhood Group Program	This intervention was a manualised program consisting of eight 2-hour sessions on consecutive weeks. Topics included: introduction to fathering, how we were fathered and how we father, co-parenting and fathering, life balance and fathering, separation, divorce and blended family issues, stages of human development, gender differences and similarities and finally positive fathering and group ending'. The sessions included dyadic presentations and experiential exercises. The sessions were delivered by two men who were trained in the delivery of the program. The 'use of self' was encouraged with regards to sharing their own fathering experiences.
4	Lee et al (2012) Taiwan	N/A	The intervention compromised of 2 parts. Part 1) a 25-page booklet written in simple language and containing coloured illustrations of real NICU scenes. Content of the booklet included: 'the equipment the baby used, baby's developmental care in the NICU, baby's nutrition, baby's appearance, what your baby is doing, what you can do with your pre-term baby when you are at

			NIVU and relaxation tips for fathers'. Part 2) Nurse guidance. A nurse would be present at each visit from the father, encouraging implementation of the booklet and supporting the father to use relaxation skills.
5	Chacko et al. (2018). New York	Fathers Supporting Success in Pre-schoolers: A Community Parent Education Program (FSSP)	This intervention was a group-based, interactive, father-to-father local knowledge transmission. The sessions utilised videotaped vignettes of exaggerated errors to generate group discussion and shared book reading between father-child. Of particular importance for this program was combining Dialogic Reading (DR) and Behavioural Parent Training (BPT), targeting improvements in parenting behaviour. A strength-based approach was used for the program, focusing on meaningful father-child interactions that also address child outcomes; this was seen as an important factor to engage fathers in BPT.
6	Havighurst et al (2018). Australia	Dads Tuning in to Kids	This intervention consisted of seven weekly 2-hour sessions in the evening and a 2 hour booster session. A structured manual was used to deliver the program. Sessions included watching videos of emotion coaching vs emotion dismissing, handout materials, practice exercises such as reading story books, role-plays, and group discussions.

7	Raouna et al. (2021) United Kingdom	Mellow Dads Program	This intervention is a 14-week early parenting, group intervention program delivered by 2-3 practitioners, of which at least one is a male. Mellow babies is for mothers and fathers 'Mellow Mums and Mellow Dads', however the programs are gender-specific and have separate groups. A week-by-week description was not available; however, the sessions include personal videotaped feedback of activities such as feeding, "hands-on" practice during mealtime and playtime, quizzes, video discussions, joint activities for parent and babies including songs, water play, mirroring and outings to libraries. It targets parents experiencing psychosocial difficulties with children up to 18 months old. The program provides transport, childcare, meals and free or inexpensive materials for parent-child activities to practice at home.
8	Lucas et al (2021). Scotland	The Dad's Group	Weekly support, each session lasting 2 hours. The number of sessions has not been reported. Structured and unstructured group-based discussion took place (topics included societal problems, crime, and mental health), the sessions also included input from practitioners and activities designed to

			enhance parenting skills and support wellbeing, such as go-karting, bowls and self-care activities such as pampering; facials and making bath-bombs.
9	Cornille et al (2005) Florida	The DADS Project (prison inmates) Number per group not reported	This intervention consisted of eight, 2.5-hour sessions. Each session had a different topic: DADS Actively Developing Self, DADS Actively Developing Safety and Sensitivity, DADS Actively Developing Play Skills, DADS Actively Developing Communication Skills, DADS Actively Developing Stress Management Skills, DADS Actively Developing Effective Discipline Skills and 2 sessions at the end of DADS Actively Developing Experiential Skills (the last consisting of a celebration of achievements throughout the program). Facilitators encouraged group interaction, modelling by facilitators, and verbal persuasion. Facilitators are encouraged to self-disclose. Role-plays and the use of multimedia resources (e.g., popular videos) were also utilised in the sessions.
10	Gamboa et al (2019). Chicago	Building Bridges to Fatherhood Program/ Pilot Group-based Fatherhood Intervention (PGFI)	This intervention consisted of 12 sessions, split into 3 units with 3 sessions each. Unit 1 was 'Fatherhood' (sessions your children need you, a journey not a destination, know your rights) Unit 2 was 'Communication'

	(clear communication, keeping your cool, problem solving) and Unit 3 was 'Parenting' (understanding your children, nurturing your children, and guiding your children). Additional sessions included a closing session and feedback sessions. The sessions involved psychoeducation, discussions of parenting style, watching videos and role-playing exercise.

Effectiveness of interventions

An effect size was calculated for all seven of the quantitative studies using Cohen's d, either by the authors of the study or the author of the current review (table 2). Of the studies that did report effect sizes, all but one used Cohen's d; Magill-Evans et al. (2007) used partial eta squared which was converted to Cohen's d through effect size automation tools.

Two reported a large effect size of d=2.1 (Lee et al., 2012) and d=0.9 (Gearing et al., 2018), three reported a medium effect size of d=0.5 (Raouna et al., 2021), d=0.6 (Chacko et al., 2018) and d=0.5 (Havighurst et al., 2018) and one reported a small effect size of d=0.2 (Magill-Evans et al., 2007). The PSOC measure is made up of two subscales, one for parenting satisfaction and one for efficacy; the effect size for the self-efficacy has been reported in this review as it related to the aims. Hudson et al. 2003 did not report an effect size, however through the current author's calculations, a cohen's d=-0.05 was identified in father self-efficacy measures.

Overall, seven out of ten studies reported that the intervention was effective in increasing fathering self-efficacy, five of these studies were quantitative (Lee et al., 2012; Raouna et al., 2021; Chacko et al.,2018; Hudson et al., 2003; Havighurst et al., 2018), and two qualitative (Lucas et al., 2021; Gamboa et al., 2019). Cornille et al. (2005) did not adequately report results on parenting confidence despite it being the main aim of the intervention, suggesting publication bias and Gearing et al (2008) and Magill-Evans et al (2007) studies reported non-significant results on one or more subscales measuring parenting skills or confidence. In Magill-Evans et al (2007) study using the PSOC measure, there was no significant improvement in parenting confidence after the intervention, however on an observer-reported measure (rated by 4 observers), parenting skills significantly improved after the intervention.

In Lucas et al (2021) and Gamboa et al (2019), authors reported an increase in skills in communication styles, balancing their life while being actively involved in their child's life, confidence in how to 'be a good father' (being present, providing financially, disciplining and nurturing) and understanding how relationship dynamics between the father and mother can affect

the father-child relationship. In addition to this, the men became 'more involved' fathers with an improvement in their confidence in modern parenting culture, 'providing' and meeting expectations of fatherhood through adversity e.g., capped benefits, cost of living, political and dealing with social pressures to be an ideal father. Skills were also improved in settling child at night, reading stories and being more affectionate. Participants in these studies also felt more confident in becoming emotionally closer to their children and showing their vulnerability.

In Lee et al (2012) and Hudson et al (2003), fathers were given material to read independently. The amount of time spent engaging with the material was not recorded. Hudson et al (2003) used an internet-based approach where data on engagement with material may have been more readily available than in Lee et al (2012) NICU based study in which fathers were given physical copies of booklets. The increase in fathering self-efficacy in these studies does not specify which part of the intervention was most effective for improving father's skills and confidence, for example the increase may have been due to other factors such as discussion with other fathers, or observing other parents in the NICU setting, rather than engaging in material; this raises questions on validity. Furthermore, many of the study's participants were new fathers; an increase in confidence post intervention may have been due to maturation. As fathers' experiences in providing care for their child increases, so too does their confidence in their skills (Bianchi et al., 2006) which suggests that caution should be taken when interpreting results.

DISCUSSION

An increasing body of research proves the positive impact active fatherhood has in the development of a child. With the increased involvement of fathers in active caregiving, it is important that father's feel confident in their parenting skills as research has shown that parenting self-efficacy is closely linked to proficient parenting behaviours (Jones et al., 2005)

This review explored father-specific interventions on increasing fathering self-efficacy and identified 10 peer-reviewed articles with a mixture of individual and group-based interventions. Although interventions were varied across studies, some important similarities were identified which could shape future father-specific intervention. These include practical 'hands-on' approach in which fathers are practising skills or learning through video-feedback or role-play, experiential exercises with children involved, strength-based feedback from professionals, access available to a professional, peer-support, father-exclusive interventions, facilitator self-disclosure and being able to relate to the facilitator e.g., male and/or father. Peer-support is of particular importance to fathers, distinctly because they are often overlooked by health and social care services and seen as secondary to mothers.

Most studies in this intervention reported effective interventions, with effect sizes ranging from d=0.2 to d=2.11, however it is to be noted that only 5 out of 10 studies incorporated a comparison/control group due to issues with recruitment, therefore results should be interpreted with caution, further, sample sizes were small for most of the studies with only 5 of the 10 studies

recruiting more than 30 fathers. Issues with recruitment to interventions was a common theme throughout the studies, with larger sample sizes coming from well-established programmes for parents. Given that father-specific interventions are still new, recruitment strategies may be an important aspect to consider in the development and planning stages of further interventions, particularly consideration of funding.

Further, this review focused on fathers' self-efficacy; self-efficacy is a dynamic process shaped by various experiences (Bandura, 1997) and can increase or decrease as children grow (Jones et al., 2005). The majority of the studies in this review delivered interventions to fathers of young children, not all ages of children were represented, therefore the application of these interventions may only be relevant for fathers of young children.

Clinical Implications

There is a continued need for father-only interventions to increase fathers' confidence and skills. Mazza (2002) reports that more helpful than simply providing parenting advice is direct practice and peer support. This finding is supported by other research which has shown that parents value group-based parenting programs as they offer a sense of community and support (Mueller et al., 2009; Law et al., 2009), this is particularly important for fathers who may otherwise feel isolated. Fathers' low self-efficacy and feelings of loneliness can be reduced by group activities, which also enable participants to see themselves as role models for other, not only as fathers or males, but as individuals worthy of respect (Mazza, 2002).

To overcome the difficulty of recruiting fathers to interventions, there is a need for father-specific 'hands-on' advertising (not passive), flexible service provision, and emphasising the value of father involvement (Bayley et al., 2009; Salinas et al., 2011). It is also vital to explore fathers' preferences for parenting program content, delivery, or features. For example, fathers have reported that the most significant factors to their willingness to take part include male facilitators, face-to-face group delivery of information, details about intervention success and the use of practical skills-based activities in the intervention (Frank et al., 2015; Scourfield et al., 2016). Practical barriers to engagement in parenting interventions have also been identified, including work commitments, lack of time, and travel distance (Salinas et al., 2011), therefore these should be considered when planning the delivery of the interventions. Lee et al., (2020) conducted a systematic review of father-inclusive perinatal parent education programs and created a list of recommendations which are pertinent to this review.

Limitations

There are several limitations to this review. Firstly, only peer-reviewed articles were included in this review; studies in grey literature were not included.

Second, most of the studies in this review used general parenting self-efficacy measures; as previous research has predominantly been conducted with mothers, these measures may not be appropriate for fathers e.g. Parenting Sense of Competence includes mother-specific statements

such as ‘my mother was prepared to be a good mother than I am’ (6 out of 17 items) and may therefore not accurately capture father’s self-efficacy.

Finally, critical appraisal tools allow us to appraise the reliability, importance, and applicability of evidence, however, the appraisal interpretation of the studies was conducted by one author making the results subjective. The quality of studies varies in this review and as such the application and replication of interventions should be conducted with caution.

Future research

Searches in grey literature, e.g., google scholar and Ethos indicate that there is much interest in fatherhood for example theses exist on identifying fathers’ needs for their wellbeing during the transition to fatherhood, father’s experiences of prenatal care, father’s mental health in the transition to fatherhood and reviews on ‘promising practices’ in fatherhood programmes (Bronke-Tinkew et al., 2012). As such, it is possible that grey literature could have added more information to this review. The quantity of grey literature indicates that there is a need for more rigorous research to be conducted in father-specific interventions, and their effect on father self-efficacy. Further, within future research, there is a need for larger, more diverse samples (e.g., gay fathers, ethnic minorities) and control groups are needed to confirm the effectiveness and generalisability of interventions. This could be achieved by detailed planning for recruitment and involving fathers in materials used to advertise. In addition to this, given that there are important differences in variables associated with mothers’ self-efficacy and fathers’ self-efficacy, and the changing conceptualisation of fatherhood, it may be important to consider the development of a new measure specifically designed to measure fathers’ self-efficacy and utilise this in father-specific interventions.

Additionally, follow-up research from the current paper may focus on why males are often viewed as ‘second class’ parents, how criteria for parenting in general lack the essential gender specificity that fathering deserves, and how our view of fathers has tended to be corrupted by ideological assumptions about males and masculinity popular in contemporary culture.

CONCLUSIONS

Overall, the evidence base for father-specific interventions is growing. Research in this area highlights the importance of considering nuance when recruiting and delivering interventions specifically for fathers, elements such as facilitator characteristics, group size and material of intervention should be given careful consideration as well as the importance of a group-based environment for social support. The small sample sizes in this review are a limitation of the studies, however it draws important attention to the need to continue father-inclusive practice.

REFERENCES

Allen, S., & Daly, K. J. (2007). The effects of father involvement. *An Updated Research Sum*, *603*, 1-27. https://static1.squarespace.com/static/5f31005d60d8203846b53362/t/5f3ddd82d2a19e5420e487aa/1597889968240/The-Effects-of-Father-Involvement.pdf

Allgood, S. M., Beckert, T. E., & Peterson, C. (2012). The role of father involvement in the perceived psychological well-being of young adult daughters: A retrospective study. *North American Journal of Psychology*, 14(1), 95. http://data7.blog.de/media/000/6504000_b40b3f37e3_d.pdf

Amato, P. R., & Gilbreth, J. G. (1999). Nonresident fathers and children's well-being: a meta-analysis. *Journal of Marriage and Family*, *61*(3), 557. https://doi.org/10.2307/353560

Andrews, K., Ayers, S., & Williams, L. R. (2022). The experience of fathers during the covid-19 UK maternity care restrictions. *Midwifery*, *113*, 103434. https://doi.org/10.1016/j.midw.2022.103434

Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, *37*(2), 122–147.

Bandura, A. (1997). *Self-efficacy: The exercise of control*. Freeman.

Bayley, J., Wallace, L., & Choudhry, K. (2009). Fathers and parenting programmes: barriers and best practice. *PubMed*, *82*(4), 28–31.

Bennett, C., Barlow, J., Huband, N., Smailagic, N., & Roloff, V. (2013). Group-Based parenting programs for improving parenting and psychosocial functioning: a systematic review. *Journal of the Society for Social Work and Research*, *4*(4), 300–332. https://doi.org/10.5243/jsswr.2013.20

Begle, A. M., & Dumas, J. E. (2010). Child and parental outcomes following involvement in a preventive intervention: efficacy of the PACE program. *The Journal of Primary Prevention*, *32*(2), 67–81. https://doi.org/10.1007/s10935-010-0232-6

Bianchi, S. M., Robinson, J. P., & Milke, M. A. (2006). *The changing rhythms of American family life*. Russell Sage Foundation.

Biblarz, T. J., & Stacey, J. (2010). How does the gender of parents matter? *Journal of Marriage and Family*, *72*(1), 3–22. https://doi.org/10.1111/j.1741-3737.2009.00678.x

Bronte-Tinkew, J., Carrano, J., Horowitz, A., & Kinukawa, A. (2008). Involvement among resident fathers and links to infant cognitive outcomes. *Journal of Family Issues*, *29*(9), 1211–1244. https://doi.org/10.1177/0192513x08318145

Chacko, A., Fabiano, G. A., Doctoroff, G. L., & Fortson, B. L. (2017). engaging fathers in effective parenting for preschool children using shared book reading: a randomized controlled trial. *Journal of Clinical Child and Adolescent Psychology*, *47*(1), 79–93. https://doi.org/10.1080/15374416.2016.1266648

Cornille, T. A., Barlow, L. O., & Cleveland, A. D. (2005). DADS family project: an experiential group approach to support fathers in their relationships with their children. *Social Work with Groups*. https://doi.org/10.1300/j009v28n02_04

Cowan, P. A., Cowan, C. P., Pruett, M. K., & Pruett, K. D. (2019). Fathers' and mothers' attachment styles, couple conflict, parenting quality, and children's behavior problems:

an intervention test of mediation. *Attachment & Human Development*, *21*(5), 532–550. https://doi.org/10.1080/14616734.2019.1582600

Department for Education. (2019, December 5). *Children looked after in England including adoption: 2018 to 2019*. GOV.UK. https://www.gov.uk/government/statistics/children-looked-after-in-england-including-adoption-2018-to-2019

Dodgson, J. E. (2019). Reflexivity in qualitative research. *Journal of Human Lactation*, *35*(2), 220–222. https://doi.org/10.1177/0890334419830990

Downs, S. H., & Black, N. (1998). The feasibility of creating a checklist for the assessment of the methodological quality both of randomised and non-randomised studies of health care interventions. *Journal of epidemiology and community health*, *52*(6), 377–384. https://doi.org/10.1136/jech.52.6.377

Featherstone, B. (2009). *Contemporary fathering: theory, policy and practice*. Policy.

Ferketich, S. L., & Mercer, R. T. (1995). Predictors of role competence for experienced and inexperienced fathers. *Nursing Research*, *44*(2), 89-95. https://doi.org/10.1097/00006199-199503000-00005

Frank, T. J., Keown, L. J., Dittman, C. K., & Sanders, M. R. (2014). Using father preference data to increase father engagement in evidence-based parenting programs. *Journal of Child and Family Studies*, *24*(4), 937–947. https://doi.org/10.1007/s10826-014-9904-9

Gamboa, C. J., & Julion, W. (2019). Group-based transmission of fatherhood among intergenerational African American fathers: A case study. *Journal of Child and Adolescent Psychiatric Nursing*, *32*(2), 73–79. https://doi.org/10.1111/jcap.12227

Gearing, R. E., Colvin, G., Popova, S., & Regehr, C. (2008). Re:Membering fatherhood: evaluating the impact of a group intervention on fathering∗. *The Journal for Specialists in Group Work*, *33*(1), 22–42. https://doi.org/10.1080/01933920701798539

Gimenez-Nadal, J. I., Mangiavacchi, L., & Piccoli, L. (2019). Keeping inequality at home: The genesis of gender roles in housework. *Labour Economics*, *58*, 52–68. https://doi.org/10.1016/j.labeco.2019.03.006

Gross, D., Fogg, L., & Tucker, S. (1995). The efficacy of parent training for promoting positive Parent—Toddler Relationships. *Research in Nursing & Health*, *18*(6), 489–499. https://doi.org/10.1002/nur.4770180605

Havighurst, S. S., Wilson, K. R., Harley, A. E., & Kehoe, C. E. (2019). Dads tuning in to kids: A randomized controlled trial of an emotion socialization parenting program for fathers. *Social Development*, *28*(4), 979–997. https://doi.org/10.1111/sode.12375

Henwood, K., & Procter, J. (2003). The 'good father': Reading men's accounts of paternal involvement during the transition to first-time fatherhood. *British journal of social psychology*, *42*(3), 337-355. https://doi.org/10.1348/014466603322438198

Holden, G. W., Barker, E. D., Appel, A. E., & Hazlewood, L. (2010). Partner-abusers as fathers: testing hypotheses about their child rearing and the risk of physical child abuse. *Partner Abuse*, *1*(2), 186–199. https://doi.org/10.1891/1946-6560.1.2.186

Hong, Q. N., Fàbregues, S., Bartlett, G., Boardman, F., Cargo, M., Dagenais, P., ... & Pluye, P. (2018). The mixed methods appraisal tool (MMAT) version 2018 for information professionals and researchers. *Education for information*, *34*(4), 285-291.

Hooper, P., Jutai, J. W., Strong, G., & Russell-Minda, E. (2008). Age-related macular degeneration and low-vision rehabilitation: a systematic review. *Canadian Journal of Ophthalmology*, *43*(2), 180–187. https://doi.org/10.3129/i08-001

Hudson, D. B., Campbell-Grossman, C., Fleck, M. O., Elek, S. M., & Shipman, A. (2003). Effects of the new fathers network on first-time fathers' parenting self-efficacy and parenting satisfaction during the transition to parenthood. *Issues in Comprehensive Pediatric Nursing*, *26*(4), 217–229. https://doi.org/10.1080/01460860390246687

Jones, T. L., & Prinz, R. J. (2005). Potential roles of parental self-efficacy in parent and child adjustment: A review. *Clinical Psychology Review*, *25*(3), 341–363. https://doi.org/10.1016/j.cpr.2004.12.004

Kane, G., Wood, V. A., & Barlow, J. (2007). Parenting programmes: a systematic review and synthesis of qualitative research. *Child Care Health and Development*, *33*(6), 784–793. https://doi.org/10.1111/j.1365-2214.2007.00750.x

Katrak, P., Bialocerkowski, A., Massy-Westropp, N., Kumar, S., & Grimmer, K. (2004). *A systematic review of the content of critical appraisal tools* (Vol. 4). Springer Science+Business Media. https://doi.org/10.1186/1471-2288-4-22

Labarre, M., Bourassa, C., Holden, G. W., Turcotte, P., & Letourneau, N. (2015). Intervening with fathers in the context of intimate partner violence: An analysis of ten programs and suggestions for a research agenda. *Journal of Child Custody*, *13*(1), 1–29. https://doi.org/10.1080/15379418.2016.1127793

Lamb, M.E., Pleck, J.H., Levine, J.A. (1985). The role of the father in child development. In: Lahey, B.B., Kazdin, A.E. (eds) *Advances in Clinical Child Psychology*. Springer.

Lamb, M. E. (2010). *The role of the father in child development*. Wiley.

Law, M., King, S., Stewart, D., & King, G. (2002). the perceived effects of parent-led support groups for parents of children with disabilities. *Physical & Occupational Therapy in Pediatrics*, *21*(2), 29–48. https://doi.org/10.1300/j006v21n02_03

Lee, T. Y., Wang, M. M., Lin, K. C., & Kao, C. H. (2012). The effectiveness of early intervention on paternal stress for fathers of premature infants admitted to a neonatal intensive care unit. *Journal of Advanced Nursing*, *69*(5), 1085–1095. https://doi.org/10.1111/j.1365-2648.2012.06097.x

Lee, J. Y., Knauer, H. A., Lee, S. J., MacEachern, M. P., & Garfield, C. F. (2018). Father-inclusive perinatal parent education programs: a systematic review. *Pediatrics*, *142*(1), e20180437. https://doi.org/10.1542/peds.2018-0437

Leerkes, E. M., & Burney, R. (2007). The development of parenting efficacy among new mothers and fathers. *Infancy*, *12*(1), 45–67. https://doi.org/10.1111/j.1532-7078.2007.tb00233.x

Lucas, S. E., Mirza, N., & Westwood, J. L. (2020). 'Any d*** can make a baby, but it takes a real man to be a dad': Group work for fathers. *Qualitative Social Work*, *20*(3), 718–737. https://doi.org/10.1177/1473325020909431

Lundahl, B., Risser, H., & Lovejoy, M. (2006). A meta-analysis of parent training: Moderators and follow-up effects. *Clinical Psychology Review*, *26*(1), 86–104. https://doi.org/10.1016/j.cpr.2005.07.004

Magill-Evans, J., Harrison, M. J., Benzies, K., Gierl, M. J., & Kimak, C. (2007). Effects of parenting education on first-time fathers' skills in interactions with their infants. *Fathering*, *5*(1), 42–57. https://doi.org/10.3149/fth.0501.42

Magill-Evans, J., Harrison, M. J., Rempel, G. R., & Slater, L. (2006). Interventions with fathers of young children: systematic literature review. *Journal of Advanced Nursing*, *55*(2), 248–264. https://doi.org/10.1111/j.1365-2648.2006.03896.x

Mazza., C. (2002). Young dads: The effects of a parenting program on urban African American adolescent fathers. *Adolescence 37*(148): 681–693

McKee, K., Cabrera, N., Alonso, A., Turcios, M., & Reich, S. (2020). Determinants of fathers' and mothers' involvement in a parenting intervention. *Psychology of Men & Masculinities*. https://doi.org/10.1037/men0000320

Mueller, T. G., Milian, M., & Lopez, M. I. (2009). Latina mothers' views of a parent-to-parent support group in the special education system. *Research and Practice for Persons with Severe Disabilities*, *34*(3-4), 113–122. https://doi.org/10.2511/rpsd.34.3-4.113

National Institute for Health and Care Excellence. (2016). *Children's attachment* [NICE Guideline No. QS133]. https://www.nice.org.uk/guidance/QS133/chapter/Quality-statement-3-Video-feedback-programmes

Nespoli, A., Ornaghi, S., Borrelli, S. E., Vergani, P., & Fumagalli, S. (2022). Lived experiences of the partners of COVID-19 positive childbearing women: A qualitative study. *Women and Birth*, *35*(3), 289–297. https://doi.org/10.1016/j.wombi.2021.07.006

Opondo, C., Redshaw, M., Savage-McGlynn, E., & Quigley, M. A. (2016). Father involvement in early child-rearing and behavioural outcomes in their pre-adolescent children: evidence from the ALSPAC UK birth cohort. *BMJ open*, *6*(11), 1-9. http://dx.doi.org/10.1136/bmjopen-2016-012034

Panter-Brick, C., Burgess, A., Eggerman, M., McAllister, F. E., Pruett, K. D., & Leckman, J. F. (2014). Practitioner Review: Engaging fathers – recommendations for a game change in parenting interventions based on a systematic review of the global evidence. *Journal of Child Psychology and Psychiatry*, *55*(11), 1187–1212. https://doi.org/10.1111/jcpp.12280

Paschal, A. M., Lewis-Moss, R. K., & Hsiao, T. (2011). Perceived fatherhood roles and parenting behaviors among african american teen fathers. *Journal of Adolescent Research*, *26*(1), 61–83. https://doi.org/10.1177/0743558410384733

Pieroni, L., & Lanari, D. (2018). the role of fathers in the criminal careers of juveniles in italy. *Journal of Demographic Economics*, *84*(4), 419–445. https://doi.org/10.1017/dem.2018.12

Pleck, E.H., & Pleck, J.H. (1997). Fatherhood ideals in the United States: Historical dimensions. In M.E. Lamb (Ed.), *The role of the father in child development* (pp. 33-48). John Wiley & Sons, Inc.

Pleck, J. H. (2010). Fatherhood and masculinity. In M.E. Lamb (Ed.), *The role of the father in child development* (pp. 27-57). John Wiley & Sons, Inc.

Popay, J., Roberts, H., Sowden, A., Petticrew, M., Arai, L., Rodgers, M., & Britten, N. (2006). Guidance on the conduct of narrative synthesis in systematic Reviews. A Product from the ESRC Methods Programme. Version 1. *A Product From the ESRC Methods Programme Version*. https://doi.org/10.13140/2.1.1018.4643

Raouna, A., Malcolm, R., Ibrahim, R., & MacBeth, A. (2021). Promoting sensitive parenting in 'at-risk' mothers and fathers: A UK outcome study of Mellow Babies, a group-based early intervention program for parents and their babies. *PLOS ONE*, *16*(2), e0245226. https://doi.org/10.1371/journal.pone.0245226

Reece, S. M., & Harkless, G. (1998). Self-Efficacy, stress, and parental adaptation: Applications to the care of Childbearing families. *Journal of Family Nursing*, *4*(2), 198–215. https://doi.org/10.1177/107484079800400206

Rosenberg, J., & Wilcox, W. B. (2006). The importance of fathers in the healthy development of children [Dataset]. In *PsycEXTRA Dataset*. https://doi.org/10.1037/e624452007-001

Salinas, A., Smith, J. C., & Armstrong, K. (2011). Engaging fathers in behavioral parent training: listening to fathers' voices. *Journal of Pediatric Nursing*, *26*(4), 304–311. https://doi.org/10.1016/j.pedn.2010.01.008

Sanders, M. R. (2008). Triple P-Positive Parenting Program as a public health approach to strengthening parenting. *Journal of Family Psychology*, *22*(4), 506–517. https://doi.org/10.1037/0893-3200.22.3.506

Scourfield, J., Allely, C., Coffey, A., & Yates, P. (2016). Working with fathers of at-risk children: Insights from a qualitative process evaluation of an intensive group-based intervention. *Children and Youth Services Review*, *69*, 259–267. https://doi.org/10.1016/j.childyouth.2016.08.021

Sevigny, P. R., & Loutzenhiser, L. (2010). Predictors of parenting self-efficacy in mothers and fathers of toddlers. *Child: Care, Health and Development*, *36*(2), 179–189. https://doi.org/10.1111/j.1365-2214.2009.00980.x

Sicouri, G., Tully, L., Collins, D., Burn, M., Sargeant, K., Frick, P., Anderson, V., Hawes, D., Kimonis, E., Moul, C., Lenroot, R., & Dadds, M. (2018). Toward father-friendly parenting interventions: a qualitative study. *Australian and New Zealand Journal of Family Therapy*, *39*(2), 218–231. https://doi.org/10.1002/anzf.1307

Smith, T. K., Tandon, S. D., Bair-Merritt, M., & Hanson, J. L. (2014). Parenting needs of urban, African American fathers. *American Journal of Men's Health*, *9*(4), 317–331. https://doi.org/10.1177/1557988314545380

Spencer, C. M., Topham, G. L., & King, E. L. (2020). Do online parenting programs create change?: A meta-analysis. *Journal of Family Psychology*, *34*(3), 364–374. https://doi.org/10.1037/fam0000605

Stacey, T., Darwin, Z., Keely, A., Smith, A., Farmer, D., & Heighway, K. (2021). Experiences of maternity care during the COVID-19 pandemic in the North of England. *British Journal of Midwifery*, *29*(9), 516–523. https://doi.org/10.12968/bjom.2021.29.9.516

Stevenson, A. (2010). *Oxford Dictionary of English* (3rd ed.). Oxford University Press.

Su, L., Kubricht, B. C., & Miller, R. B. (2017). The influence of father involvement in adolescents' overall development in Taiwan. *Journal of Adolescence*, *59*(1), 35–44. https://doi.org/10.1016/j.adolescence.2017.05.010

The Centre for Social Justice (2020). *Family Structure Still Matters.* https://www.centreforsocialjustice.org.uk/wp-content/uploads/2020/10/CSJJ8372-Family-structure-Report-200807.pdf

Van Wel, F., Linssen, H., & Abma, R. (2000). The parental bond and the wellbeing of adolescents and young adults. Journal of Youth and Adolescence, 29(3), 307-318. https://doi.org/10.1023/A:1005195624757

Vasilevski, V., Sweet, L., Bradfield, Z., Wilson, A. N., Hauck, Y., Kuliukas, L., Homer, C., Szabo, R. A., & Wynter, K. (2022). Receiving maternity care during the COVID-19 pandemic: Experiences of women's partners and support persons. *Women and Birth*, *35*(3), 298–306. https://doi.org/10.1016/j.wombi.2021.04.012

Webster-Stratton, C. & Spitzer, A. (1996). Parenting a young child with conduct problems: new insights using qualitative methods. In eds T. H. Ollendick & R. J. Prinz (Eds.), *Advances in Clinical Child Psychology (*pp. 1–62). Plenum Press.

Xie, E. B., Jung, J. W., Kaur, J., Benzies, K. M., Tomfohr-Madsen, L., & Keys, E. (2023). Digital parenting interventions for fathers of infants from conception to the age of 12 months: systematic review of mixed methods studies. *Journal of Medical Internet Research*, *25*, https://www.jmir.org/2023/1/e43219

Yeung, W. J., Sandberg, J. F., Davis-Kean, P. E., & Hofferth, S. L. (2001). Children's time with fathers in intact families. *Journal of Marriage and Family*, *63*(1), 136–154. https://doi.org/10.1111/j.1741-3737.2001.00136.x

APPENDICES

Appendix 1

Downs and Black

Appendix

Checklist for measuring study quality

Reporting

1. *Is the hypothesis/aim/objective of the study clearly described?*

yes	1
no	0

2. *Are the main outcomes to be measured clearly described in the Introduction or Methods section?*
If the main outcomes are first mentioned in the Results section, the question should be answered no.

yes	1
no	0

3. *Are the characteristics of the patients included in the study clearly described ?*
In cohort studies and trials, inclusion and/or exclusion criteria should be given. In case-control studies, a case-definition and the source for controls should be given.

yes	1
no	0

4. *Are the interventions of interest clearly described?*
Treatments and placebo (where relevant) that are to be compared should be clearly described.

yes	1
no	0

5. *Are the distributions of principal confounders in each group of subjects to be compared clearly described?*
A list of principal confounders is provided.

yes	2
partially	1
no	0

6. *Are the main findings of the study clearly described?*
Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. (This question does not cover statistical tests which are considered below).

yes	1
no	0

7. *Does the study provide estimates of the random variability in the data for the main outcomes?*
In non normally distributed data the inter-quartile range of results should be reported. In normally distributed data the standard error, standard deviation or confidence intervals should be reported. If the distribution of the data is not described, it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0

8. *Have all important adverse events that may be a consequence of the intervention been reported?*
This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. (A list of possible adverse events is provided).

yes	1
no	0

9. *Have the characteristics of patients lost to follow-up been described?*
This should be answered yes where there were no losses to follow-up or where losses to follow-up were so small that findings would be unaffected by their inclusion. This should be answered no where a study does not report the number of patients lost to follow-up.

yes	1
no	0

10. *Have actual probability values been reported(e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001?*

yes	1
no	0

External validity

All the following criteria attempt to address the representativeness of the findings of the study and whether they may be generalised to the population from which the study subjects were derived.

11. *Were the subjects asked to participate in the study representative of the entire population from which they were recruited?*
The study must identify the source population for patients and describe how the patients were selected. Patients would be representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling is only feasible where a list of all members of the relevant

population exists. Where a study does not report the proportion of the source population from which the patients are derived, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

12. *Were those subjects who were prepared to participate representative of the entire population from which they were recruited?*
The proportion of those asked who agreed should be stated. Validation that the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study sample and the source population.

yes	1
no	0
unable to determine	0

13. *Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive?*
For the question to be answered yes the study should demonstrate that the intervention was representative of that in use in the source population. The question should be answered no if, for example, the intervention was undertaken in a specialist centre unrepresentative of the hospitals most of the source population would attend.

yes	1
no	0
unable to determine	0

Internal validity - bias

14. *Was an attempt made to blind study subjects to the intervention they have received ?*
For studies where the patients would have no way of knowing which intervention they received, this should be answered yes.

yes	1
no	0
unable to determine	0

15. *Was an attempt made to blind those measuring the main outcomes of the intervention?*

yes	1
no	0
unable to determine	0

16. *If any of the results of the study were based on "data dredging", was this made clear?*
Any analyses that had not been planned at the outset of the study should be clearly indicated. If no retrospective unplanned subgroup analyses were reported, then answer yes.

yes	1
no	0
unable to determine	0

17. *In trials and cohort studies, do the analyses adjust for different lengths of follow-up of patients, or in case-control studies, is the time period between the intervention and outcome the same for cases and controls ?*
Where follow-up was the same for all study patients the answer should yes. If different lengths of follow-up were adjusted for by, for example, survival analysis the answer should be yes. Studies where differences in follow-up are ignored should be answered no.

yes	1
no	0
unable to determine	0

18. *Were the statistical tests used to assess the main outcomes appropriate?*
The statistical techniques used must be appropriate to the data. For example non-parametric methods should be used for small sample sizes. Where little statistical analysis has been undertaken but where there is no evidence of bias, the question should be answered yes. If the distribution of the data (normal or not) is not described it must be assumed that the estimates used were appropriate and the question should be answered yes.

yes	1
no	0
unable to determine	0

19. *Was compliance with the intervention/s reliable?*
Where there was non compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes.

yes	1
no	0
unable to determine	0

20. *Were the main outcome measures used accurate (valid and reliable)?*

For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be answered as yes.

yes	1
no	0
unable to determine	0

Internal validity - confounding (selection bias)

21. *Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population?*
For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case-control studies where there is no information concerning the source of patients included in the study.

yes	1
no	0
unable to determine	0

22. *Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time?*
For a study which does not specify the time period over which patients were recruited, the question should be answered as unable to determine.

yes	1
no	0
unable to determine	0

23. *Were study subjects randomised to intervention groups?*
Studies which state that subjects wererandomised should be answered yes except where method of randomisation would not ensure random allocation. For example alternate allocation would score no because it is predictable.

yes	1
no	0
unable to determine	0

24. *Was the randomised intervention assignment concealed from both patients and health care staff until recruitment was complete and irrevocable?*
All non-randomised studies should be answered no. If assignment was concealed from patients but not from staff, it should be answered no.

yes	1
no	0
unable to determine	0

25. *Was there adequate adjustment for confounding in the analyses from which the main findings were drawn?*
This question should be answered no for trials if: the main conclusions of the study were based on analyses of treatment rather than intention to treat; the distribution of known confounders in the different treatment groups was not described; or the distribution of known confounders differed between the treatment groups but was not taken into account in the analyses. In non-randomised studies if the effect of the main confounders was not investigated or confounding was demonstrated but no adjustment was made in the final analyses the question should be answered as no.

yes	1
no	0
unable to determine	0

26. *Were losses of patients to follow-up taken into account?*
If the numbers of patients lost to follow-up are not reported, the question should be answered as unable to determine. If the proportion lost to follow-up was too small to affect the main findings, the question should be answered yes.

yes	1
no	0
unable to determine	0

Power

27. *Did the study have sufficient power to detect a clinically important effect where the probability value for a difference being due to chance is less than 5%?*
Sample sizes have been calculated to detect a difference of x% and y%.

	Size of smallest intervention group	
A	$<n_1$	0
B	n_1–n_2	1
C	n_2–n_3	2
D	n_3–n_4	3
E	n_4–n_5	4
F	n_5+	5

Appendix 2

Mixed Methods Assessment Tool

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

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

Appendix 3

Summary of quality appraisal

	Downs and Black																									
No	**Question number.**																									**/26**
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**	**23**	**24**	**25**	**26**	
1	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	Y	Y	N	Y	Y	N	U	Y	N	N	U	N	N	U	U	12
2	Y	Y	Y	Y	Y	Y	Y	U	Y	N	N	Y	Y	Y	U	Y	Y	Y	Y	Y	N	Y	Y	U	Y	Y	20
3	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	U	U	-	Y	Y	U	N	Y	Y	-	-	-	-	Y	Y	U	13/20
4	Y	Y	N	Y	Y	Y	Y	N	Y	N	N	Y	Y	U	U	U	Y	Y	Y	Y	N	N	N	Y	U	Y	15
5	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	N	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	Y	Y	Y	24
6	Y	Y	Y	Y	U	Y	Y	Y	Y	Y	N	Y	Y	U	Y	N	Y	Y	Y	Y	Y	Y	U	Y	Y	Y	21
7	Y	Y	Y	Y	-	Y	Y	Y	Y	Y	Y	Y	-	Y	Y	U	Y	U	Y	-	-	-	-	Y	Y	Y	18/20

No.	**Question number.**												**Total (out of 7)**	**Comments**
	S1	**S2**	**1.1**	**1.2**	**1.3**	**1.4**	**1.5**	**5.1**	**5.2**	**5.3**	**5.4**	**5.5**		
8	Y	Y	Y	Y	U	Y	Y	-	-	-	-	-	6	Screening and 'Qualitative' section questions answered of MMAT (1.1 - 1.5)
9	Y	Y	-	-	-	-	-	Y	Y	U	Y	N	5	Screening and 'Mixed Methods' section questions answered of MMAT (5.1-5.5)
10	Y	Y	Y	U	Y	Y	Y	-	-	-	-	-	6	Screening and 'Qualitative' section questions answered of MMAT (1.1 - 1.5)

Appendix 4

Summary of studies

Table 2. Summary of studies and findings

	Authors	Age of child	Sample size (intervention = I and Control = C)	Setting	Measures for self-confidence	Effect size	Results summary	Quality score (%)
Quantitative	[1] Hudson et al., (2003)	4-8 weeks	I=14 C=20	Internet based (individual)	Infant Care Survey (Froman and Owen, 1989) 52 item likert scale	*Cohen's d=-0.05	Significant improvement in the intervention group for the Infant Care Survey.	12/26 (46%)
	[2] Magill-Evans et al (2007)	5 months	I=84 C=85	Home visits (individual)	Parenting sense of competence scale (PSOC; Johnston and Mash, 1989) 16 items rated on a 6-point scale and Nursing Child Assessment Teaching Scale (NCATS) 73 behaviours, measures parenting skill and scored by observers.	Cohen's d= 0.06 (satisfaction subscale) **Cohen's d= 0.2 (efficacy subscale)**	Only significant main effect for PSOC was the efficacy subscale but no significant interaction with time or either PSOC subscale. Significant increase in NCATS scores post intervention.	20/26 (77%)
	[3] Gearing et al., (2008)	Not reported	I=29 C=0	unspecified - groups lead by 2 professionals	Subscale 'role performance' of the Family Assessment Measure and Parenting Stress Index (120 item self-report) subscale includes competence	*Cohen's d= 0.9	Significant difference in 'role performance' scale between time point 1 and time point 3. Results were not maintained at 3 months follow up.	13/20 (65%)
	[4] Lee et al., (2012)	"New-born"	I=34 C=35	NICU (individual)	Fathering ability in the Neonatal ICU 18 item scale 5-point likert scale	*Cohen's d= 2.11	Fathers in intervention group scored significantly higher in fathering ability than control group.	15/26 (58%)
	[5] Chacko et al., (2018)	"Young children"	I=64 C=62	Head start centres (group based, mix of small and large groups)	Dyadic Parent-child interaction Coding System-R (Robinson and Eyberg, 1981), focused on positive parenting, negative parenting and child problems both self-reported and observed	Cohen's d= 0.6	Significant improvement in parenting skills in the intervention group post intervention, with a moderate effect size.	24/26 (92%)
	[6] Havighurstet al., (2018)	4-5 years	I=87 C=75	Community centre, local library, researcher's onsite training venue	Parenting sense of competence scale (PSOC; Johnston and Mash, 1989) no. of items not noted.	Cohen's d = 0.3 (satisfaction subscale) cohen's d = 0.5 **(efficacy subscale)**	Significant increase in PSOC scores in the intervention group.	21/26 (81%)

	[7] Raouna et al., 2021 [3]	Mean age of 8.5 years	I=19 C=0	Group based environment	The Karitane Parenting Confidence Scale (15 item self-reported)	Cohen's d= 0.5	Significantly increased parenting confidence. But no longer reached significance level during ITT analysis. (e.g., people who dropped out scored higher on pre scores for confidence than people who completed MB).	18/20 (90%)
Qualitative	[8] Lucas et al., (2021)	1-16 years	I=7 C=0	Family Centre, in the community in a deprived area	Focus group discussion	N/A	Qualitatively reported improvement in confidence in modern parenting, providing financially and meeting fatherhood expectations through adversity. Skills improvement included 'hands-on' tasks such as settling child at night, reading stories and being more affectionate	6/7 (86%)
Mixed methods	[9] Cornille et al., (2005)	Not reported	I=63 C=0	Prison (3 different facilities)	Qualitative feedback and eight subscales from the Parental Attitude Research Instrument (Schuldermann and Schuldermann, 1977)	No means, SDs or effect sizes reported.	No significant improvements in subscales related to parenting self-efficacy. Authors state there was an improvement in parenting skills however no such thing has been reported qualitatively in the study.	5/7 (71%)
Case study	[10] Gamboa et al., (2019)	Majority aged 2-5	I=4 C=0 (Pilot study)	Specific setting not reported, but participants were recruited from a large urban area.	Qualitative description from reflections during interview	N/A	Qualitatively reported improvement in parenting skills related to communication styles, balancing life with active parenting, confidence in being a 'good father' (e.g., being involved in child's day-to-day life, providing financially, disciplining and nurturing)	6/7 (86%)

* Effect size was not reported in studies therefore it has been calculated by author from reported Mean and Standard Deviation using formula $d = (M_1 - M_2) / SD_{pooled}$

Study 1 effect size has been calculated from Mean and SD of groups at 8 weeks (second time point)

Study 2 effect size was reported in partial eta squared; this has been converted to cohen's d for standardised effect size reporting using Means and SD from 8 months (second time point)

Small effect size 0.2
Medium effect size 0.5
Large effect size 0.8

AUTHOR PROFILES

Muzamal Rehman is a final year trainee clinical psychologist at Staffordshire University in the UK and her current doctoral research is focused on first-time fathers. She has an interest in male mental health, having previously worked across two male prisons and in a range of other settings. Muzamal's other interests include depression, particularly in first-time fathers, anxiety disorders, suicide and self-harm, and the mental health of young people. She has previously published journal articles about self-harm.

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