



Methodology

How we compiled the literature library for our review

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Summary

In this project, funded by the Nuffield Foundation*, our aim has been to compile a literature library based on systematic searches to provide evidence to answer the following question: ‘What research has been published (mainly in the social sciences) that examines UK fathers and/ or fatherhood or is relevant to their aspirations or functioning as parents?’.

We were interested in ‘social’ fathers (such as stepfathers and foster fathers) as well as in ‘birth’ or ‘natural’ fathers, and in a wide range of topics pertaining to them. These ranged from relevant government policies, to public attitudes and ways in which fathers were represented in films and children’s books, to the men’s own characteristics, beliefs, attitudes, circumstances and behaviours, and to any links with positive or negative outcomes in their children.

We limited our literature library, which we built on a database called Endnote, to studies published from 1998. We included

‘background’ papers, as well as empirical studies – some obtaining their data from very small samples, others from enormous datasets of hundreds, if not thousands, of British dads.

Our search methods included systematic investigation of bibliographic databases (which compile research studies on a wide range of topics) to ‘research alerts’ from organisations/networks listing newly published research. We also emailed known experts and searched reference lists. By September 2017 our literature library contained 2,304 records (mainly academic articles, reports and book chapters), all of them relevant to fathers/ fatherhood in Britain.

We needed to be able search this database quickly to identify studies on specific topics, such as young fathers (120 studies in September 2017), or fathers’ mental health (201) or mothers’ employment (93), which we included where it was relevant to, for example, fathers’ care-taking or earning. For search purposes, we therefore created a bespoke schedule of relevant keywords, entering these, as appropriate, to a search field in each record. We also coded the 150 datasets on which the empirical research was based.

During winter 2017/18, we are publishing several major reports, mainly based on findings from our Endnote Literature Library, which continues to grow as new research is identified and added. We hope that other researchers, as well as ourselves, will be able to draw on it in the future.

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I. The aim of our literature searches

Our aim was to compile a literature library based on systematic searches to provide us with evidence to answer the following question: ‘What research has been published (mainly in the social sciences) that examines UK fathers¹ and/ or fatherhood or is relevant to their aspirations or functioning as parents?’

Topics we planned to investigate were:

- I. Men’s pre-conception health and behaviour, including pregnancy planning and reproductive attitudes and behaviour
- II. Expectant fathers’, fathers’, father figures’ and grandfathers’ relevant characteristics and circumstances (e.g. age, ethnicity, education, income, geographic location, sexual orientation, physical and mental health, housing, cohabitation/ couple relationship status, employment status)
- III. Expectant fathers’, fathers’, father figures’ and grandfathers’ relevant beliefs, attitudes, circumstances and behaviours (e.g. involvement² with children)
- IV. Related paternal, maternal, child, family and societal outcomes
- V. ‘Genetic bequests’ (father to subsequent generations)
- VI. Mothers’, fathers’, children’s and other stakeholders³ views/ beliefs/ behaviours (in relation to British fathers/ fatherhood)
- VII. Socio-cultural norms and media/ other cultural representations of fathers/ fatherhood relevant to UK populations
- VIII. Legislative and policy frameworks and institutional practices⁴ impacting on British fathers/ fatherhood
- IX. Parenting and other interventions and support, where data on fathers was disaggregated from ‘parental’ and other data

¹‘Social’ fathers as well as birth fathers.

² The most widely-used model (Lamb et al., 1987) proposes three dimensions of father involvement: (1) Engagement (i.e. the extent to which fathers experience direct contact and shared interactions with their children in the context of caretaking, play or leisure); (2) Availability (i.e. a father’s presence or accessibility to the child); and (3) Responsibility (e.g. the extent to which a father arranges for resources to be available to the child, including organizing and planning children’s lives).

³Stakeholders include the general public, policy makers, service providers, employers/ managers, researchers.

⁴Including in health, education, family services, social care, the criminal justice system and employment.

X. Couple relationships (in relation to children), parental roles (mothers/ fathers) and family life; and co-parenting quality and functioning (with data on fathers disaggregated from mothers').

2. How we decided which studies to include

We agreed that in order to be included in our literature library, studies had to:

- i. Be published during or after 1998⁵; AND
- ii. Be written in English; AND
- iii. Be based on data, qualitative or quantitative, relevant to UK fathers/ fatherhood, which had been collected (fieldwork/ sample) wholly or partly in the UK⁶; OR
- iv. If not based on empirical research, be
 - Research reviews relevant to fathers/ fatherhood⁷ (we coded these R); OR
 - Studies of methodology (in relation to fathers/ fatherhood) (we coded these M); OR
 - Deemed by us (a subjective judgement) to be of value as 'background' papers' relevant to UK fathers/ fatherhood⁸ (we coded these B).

Our **exclusion criteria** (in addition to 'reverses' of our inclusion criteria) were:

- I. Topic not relevant to fathers/ fatherhood⁹
- II. Papers which mentioned fathers in background/ conclusions, but did not include them in sample or analysis
- III. Study samples of men, not fathers¹⁰

⁵To capture literature subsequent to the report *Fathers and Fatherhood in Britain* (Burghes et al., 1997).

⁶Study subjects living in England, Wales, Scotland or Northern Ireland.

⁷We aimed to read the full texts of all the reviews we had identified, as some were likely to reference publications that should be in our database. Reading all these is an ongoing process. However, our experience so far is that we already have, in our library, most of the publications derived from UK data included in the reviews.

⁸ Background papers included were, for example, papers describing or discussing policy or practice relevant to fathers/ fatherhood in Britain, including intervention/ practice descriptions without evaluation/ impact/ process data.

⁹ Even with the best designed search terms, studies retrieved in systematic searches prove, during screening, to be unrelated to the topic being investigated.

¹⁰ In the preconception period the male subjects were clearly men, and not yet fathers!

- IV. Papers in which father variables (e.g. SES), were only controlled for in analysis or used to calculate derived variables (e.g. social mobility of children)
- V. Papers which did not disaggregate paternal from other variables or did not publish findings specific to fathers
- VI. If theses, below PhD level
- VII. If empirical studies, were based on samples of fewer than five fathers
- VIII. If empirical studies, did not describe their methodology
- IX. Discussion/ theoretical papers without empirical/ research evidence/ data¹¹ (unless judged to be a key background paper)
- X. Individual case descriptions or personal testimony
- XI. Studies of fertility/ infertility in men
- XII. Studies of children's impact on couple relationships
- XIII. Studies of impact of family structure (e.g. separation/ divorce, 'stepfamilies') on children, which did not include data specifically about fathers.

3. Our search activities

3.1 *Bibliographic databases*

3.1.1 **Databases searched**

From July-September 2014 we searched a range of bibliographic databases for relevant articles, reports and book chapters. We screened the records retrieved to see whether they met our inclusion criteria for an online (Endnote) library, to create a keyworded literature library.

We prioritised databases with a high proportion of UK literature (Cooper et al., 2012), especially those based in the UK: Applied Social Sciences Index and Abstracts, PubMed, PsycINFO, Social Policy & Practice, British Nursing Index, British Education Index, Health Management Information Consortium, International Bibliography of the Social Sciences.

We also searched Zetoc Conference Proceedings, OpenGrey and Ethos, in order to identify relevant conference papers, theses and other publications beyond academic books and journals.

¹¹ For example, some fathering studies have been inappropriately described as 'qualitative' when their content has amounted to little more than journalistic description (Lewis & Lamb, 2007).

3.1.2 Our search terms

Our initial database searches consisted of free text and controlled terms for the 'father' concept (see below) in title or abstract, combined with a UK search filter (see below) in title and abstract, institution and location fields (with the aim of restricting the literature to studies conducted in the UK or including UK samples, data and/ or fieldwork). We also used controlled terms for the UK concept, where possible. In PubMed, which includes veterinary and other non-human references, we added an additional 'human' limit.

So as to minimise the possibility of missing any useful data, we used an iterative process to develop, test and refine search strategies with which to interrogate the bibliographic databases. Our aim was to strike a balance between sensitivity and specificity i.e. to capture as wide a selection of relevant records as possible by identifying a comprehensive set of synonyms and related terms for the 'father' concept, and at the same time to exclude irrelevant records, so as to minimise screening time.

Thus we searched for 'father' and its variants:

- father* (to capture all variants eg father, fathers, fatherhood, fathering, father figure, fatherly, fathered, father-to-be, father-child, father-mother, fatherless)

We searched for synonyms and terms for other father figures:

- dad* (eg dad, dads, daddy, daddies)
- stepfather* OR step-father* OR step ADJ father*
- grandfather* OR grand-father* OR grand ADJ father*

We discovered that our searches were picking up numerous irrelevant records that featured commonly used phrases that include the word 'father' in the title or abstract (such as 'founding father*'; 'Holy Father'; and 'fatherland'); so we excluded these from our searches using NOT.

Cognisant of the fact that studies that do not focus explicitly on fathers or fatherhood (and would not therefore mention such terms in the title or abstract) may nevertheless include useful and relevant data, we developed our search strategy in such a way as to also employ a range of alternative terms.

We searched for studies mentioning 'paternity' or 'paternal'. Here we excluded variants on 'paternalism', thus removing more irrelevant results before screening:

- patern* (eg paternal, paternity) NOT paternalis* (to exclude paternalism and paternalistic)

We searched for studies where data about fathers and fatherhood might appear, but where fathers or father-figures might be 'hidden' as a result of the study authors' use of the catch-all

term 'parent'¹²; or where fathers might be otherwise obscured in the title or abstract by being mentioned only in reference to their child, or the mother of their child:

- gay + parent* OR homosexual + parent* OR 'same sex' OR 'same-sex' + parent*
- coparent* OR co-parent* OR 'co parent'*
- coresident OR co-resident OR 'co resident'....AND (parent* or child*)
- mother* + partner*
- mother* + boyfriend
- 'non-resident parent'* OR 'nonresident parent'* OR 'non resident parent'*
- 'absent parent'*
- 'parental absence'
- separated + parent*
- blended famil*

We expected to identify relevant studies where fathers and mothers may be referred to by particular ascribed roles or functions, rather than as 'father' or 'mother', so we included the following terms:

- breadwinner* or 'bread winner'* or bread-winner*
- 'child support' OR 'child maintenance' OR 'child contact'
- maternal + gatekeep* (e.g. gatekeeping, gatekeeper)

We also included literature on couple relationships and divorce/ separation in relation to children/ parenting roles and behaviours, so for example:

- divorce + child*
- postdivorce + child* or post-divorce + child* or 'post divorce' + child*
- separation + child*
- marital relationship/ stability/ satisfaction/ conflict OR
- partner relationship/ stability/ satisfaction/ conflict OR
- couple relationship/ stability/ satisfaction/ conflict OR

¹² We did not include 'parent'/'family'/'synonyms in our search, nor terms relating to children or children's services. Therefore we would have missed studies where, while the full text included data on fathers, the 'father concept' did not feature in the title or abstract because fathers were not a focus of the publication. Contacts with experts and other search methods (see Section 2.2, below) will have picked up some of this literature.

- relationship satisfaction/ stability/ conflict

...AND parent* OR child*

We also searched for studies tagged in databases using relevant thesaurus terms:

e.g. in ASSIA: ("Young fathers") OR ("Elderly fathers") OR ("Noncustodial fathers") OR ("Fathers") OR ("Fathers-in-law") OR ("Expectant fathers") OR ("Separated fathers") OR ("Natural fathers") OR ("Alcoholic fathers") OR ("Absent fathers") OR ("Adolescent absent fathers") OR ("Father absent") OR ("Father-Daughter incest") OR ("Father-Daughter relationships") OR ("Divorced fathers") OR ("Adolescent fatherhood") OR ("Terminally ill fathers") OR ("Fatherless") OR ("Father-Infant interactions") OR ("Single fathers") OR ("Father-Son relationships") OR ("Father-Child interactions") OR ("Fatherhood") OR ("Father-Child relationships") OR ("Homosexual fathers") OR ("Fathering") OR ("Unmarried fathers") OR ("Adolescent fathers") OR ("Mother-Father interdependence") OR ("Low income fathers") OR ("Adoptive fathers").

Since undertaking the searches, it has occurred to us that *parent + male* might identify some papers otherwise missed, but we have not yet tested this hypothesis.

In PubMed, due to the vast amount of biomedical research on fathers, we excluded some non-research 'publication types'; and we also devised a NOT search string that excluded genetic and biomedical studies of fertility/ reproduction, infertility, genetic impacts on medical conditions and traits, and molecular biology. For example, we excluded scientific terms such as 'germ cell', 'mutation', 'sperm count' and 'autosomal'. We did not exclude generic terms such as 'genetic' and 'genes' as these are often used in introduction and discussion sections of papers in the health, psychological and sociological literatures.

3.1.3 Scope

We wanted to narrow our search to only studies including UK samples, data or fieldwork. However, most of the bibliographic databases are international, and whether or not the data is collected in the UK is not immediately clear. We tried to solve this by controlling the scope of our search using a UK filter developed by the EPPI-Centre for previous systematic reviews - e.g. one about young people's views on obesity and body size (Rees et al., 2013)¹³. We adapted this by:

- Removing European, Irish and other international terms
- Adding UK university names and terms relating to the NHS and local authorities

¹³Since our adaptation of the EPPI-Centre's filter in 2014, a similar UK filter for bibliographic databases has been developed for use in National Institute for Health and Care Excellence (NICE) reviews. This was validated through methodological work (Ayiku et al., 2017).

- Excluding certain terms which relate to specific overseas institutions, cities or districts (e.g. Birmingham Alabama, Cambridge Massachusetts, London Ontario).

We found that the UK filter worked on some of the larger databases (e.g. PubMed, PsycINFO) but not on the Proquest interface (ASSIA, IBSS) or smaller databases e.g. British Nursing Index. See Appendix 1 for an example of our search strategy including UK filter.

In total we found 17,322 studies: more detail is provided in the table below.

Database	Number of records
Applied Social Sciences Index and Abstracts	3789
International Bibliography of the Social Sciences	3530
PsycINFO	3200
PubMed	2113
Social Policy and Practice	1595
British Nursing Index	1083
British Education Index	312
Health Management Information Consortium	703
OpenGrey	465
Ethos	258
Zetoc Conference Proceedings	274
All databases	17322

After de-duplication we had a total of 12,981 records in a REVIEWED folder in our literature library, identified through our initial systematic searches. The 'Abstract' was mostly included in the record and an online search pulled in some of the full text PDFs.

3.1.4 Screening

We then set about identifying the studies that met our inclusion criteria.

Following pilot screening to establish consistency between our three researchers, we screened the, authors, author addresses, titles, abstracts and keywords of all 12,981 records by hand. We did this systematically using our inclusion and exclusion criteria (see above). The vast majority of our (many) exclusions were due to the subjects of the study residing outside the United Kingdom, or to the study topic not being related to fathers/ fatherhood. When it was not clear, from the fields in a record, whether a study met our inclusion criteria, we coded it

Q. We then obtained the full text so that we would have sufficient information to include or exclude it.

At the end of the screening process, we were left with a literature map in our Endnote Library of 1,177 studies, out of the 12,858 identified by our systematic searches of the bibliographic databases.

Later, as we used the library, added full texts, changed our exclusion criteria slightly and explored records and texts in more detail we found a few studies among those we had EXCLUDED which needed to be moved into the INCLUDED folder; and vice versa. Ultimately, we identified 1,293 studies for inclusion from those identified in our initial searches.

3.2 Other search methods

We also searched for references from other sources:

- Known experts
- Email/ news alerts received from organisations/ networks listing newly published research
- Fatherhood Institute reviews and research briefings
- The reference lists of some of the papers in our Endnote Library
- Online publication lists for key large-scale named datasets to find publications that we had not found on the bibliographic databases (either through oversight or because they were not listed)¹⁴; or that were unlikely to appear on bibliographic databases (e.g. ONS statistical publications, and dataset primary analyses and working papers)
- Online publication lists of organisations, including government departments and other funders, likely to have published relevant studies
- A call for evidence put out via the Fatherhood Institute e-newsletter.

As the work progressed, we updated our systematic searches of some of the databases we had originally searched, in order to identify new literature added since we had last searched. Each time we did so, we found a (very) few studies we had not known about. For example, a search of PubMed for the period from 1 September 2016 to 1 June 2017 (nine months) revealed only seven relevant studies of which we were unaware: the rest we had identified from other sources and had already added to our literature library. This suggests that to keep the literature library fully updated, an annual or biannual systematic search would be worthwhile.

¹⁴ It is possible however that we missed a few papers which included data on fathers or parental relationships as part of a large analysis and which did not mention fathers or parental relationships in title or abstract.

All in all, through the hand/ expert and later database searches, we identified an additional 1,011 studies for inclusion. Adding these to the 1,293 studies identified through the original systematic database search resulted in a literature library consisting of 2,304 records by September 2017. We created a separate library of important papers not based on UK data, which we felt were of particular relevance.

4. Keywording

All authors enter keywords in the KEYWORDS section of a record, and databases often add their own. This means that in the bibliographic databases, there is no real standardisation. We needed to be able to identify with more certainty, the topics covered in a particular study. We therefore created a schedule of our own keywords, and applied these to each study in our literature library on the basis of Title/ Abstract/ Notes and author keywords. Subsequently, when we read the full PDF of a study, we became aware of other topics addressed in it, and added these to the 'keywords' field, on the basis of the keyword schedule we had devised. This is an ongoing process.

When a study's findings were derived from data in a named quantitative dataset (e.g. the Labour Force Survey, the West of Scotland Midspan cohort studies), we entered a code in one of the fields in the record, to identify the dataset concerned. These datasets consisted of birth and other age cohort datasets, longitudinal studies, panel surveys (one-off, repeated), cross-sectional surveys (one-off, occasional, repeated), derived statistics (e.g. birth registration data), service surveys, and so on. As of September 2017, we have identified 150 datasets on which at least one study in our literature library is based.

5. And finally..

In our Reports that make use of the literature library, we do not cite any study for which we have been unable to obtain, and read, the full text. For example, some PhD theses proved impossible to track down, or would have been too expensive to obtain, and so we could not include the findings detailed in their abstracts, in our cited research.

Some studies, often by the same author(s), were based on the same evidence or findings. Among these, some publications mainly repeated the same findings (e.g. in a Report, then followed by a Journal Article), while others presented different perspectives on the findings in different publications. When enumerating studies under a particular topic, we have not differentiated between these.

When we cite studies in our reports, we include cross-national studies (for example of European fathers' work-to-family stress) where these contain information from UK datasets.

Although we searched PubMed and the British Nursing Index, it is possible that there are a few further papers in the biomedical literature which our social science focused searches did not find.

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ver=2013-05-15-121216-060.

We are keeping our Literature Library up to date and are able to run searches for you. For a no-obligation discussion about your requirements, contact Adrienne Burgess via a.burgess@fatherhoodinstitute.org.

