PARENTS' PREFERRED CHILD HEALTH INFORMATION SOURCES: IMPLICATIONS FOR NURSING PRACTICE

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ABSTRACT

Aim:

To ascertain parents' preferences in sources of health information concerning their children's general health care needs, and caring for their children when they are sick.

Design:

Exploratory/descriptive design. A telephone survey secured data for the study and qualitative content analysis and descriptive statistics were used for analysis.

Setting & Participants:

Part 2 of a larger study in which Part 1 evaluated parents' satisfaction with a paediatric telephone triage service. One hundred of the 101 parents who were recruited for Part 1 of the study participated in Part 2, an examination of parents' preferences in information sources relating to their child's health.

Main Outcome Measures:

Parents' preferences in child health information sources varied according to the perceived severity of their child's illness.

Results:

Parents frequently selected more than one item on a list of health information sources provided. In a non-urgent situation when children were sick a total of 170 selections were made by parents, with 'telephone advice line' the source most frequently selected (58, 34%), followed by general practitioner (27, 15.8%). In an emergency situation the most frequently selected information source was again 'telephone advice line' (74, n=129, 57.4%), followed by 'other' (31, n=129, 24.3%) often identified as relating to dialing '000' (Australia's emergency services number). Finally, when parents required information about the general health care needs of their child, 'other' (most frequently identified as books) was selected on 40 (n=185, 21.6%) occasions, followed by child health clinic (35, n= 185, 18.9%).

Conclusion:

Parents prefer to receive information about the health care needs of their child from another person rather than a printed or audio-visual source.

INTRODUCTION

A small pilot study aimed at identifying parents' preferences in sources of child health information (CHI) was conducted within a larger study designed to evaluate the Kids Kare Line (KKL). The KKL, a telephone triage service for parents of sick or well children, was commenced in 1993. This service, situated in regional New South Wales, is operated by registered nurses experienced in paediatric/child health nursing. These nurses are oriented to this specialty of nursing (Wilkinson et al 2000), have access to continually updated policies (Gobis 1997) and enter information arising from parents' telephone calls into a database to ensure a record of each call (Coleman 1997).

Interest in parents' preferences in sources of information related to their child's health was stimulated by the range of calls received by nurses operating the KKL and the limited amount of literature, particularly research literature, relating to this topic. In addition, much of the existing literature relates to models through which to provide parents with health care information (HCI) for children (Lee et al 2003; Glasper et al 1995) and its impact on their decision making in relation to their child's health care (De Serres, Duval and Boulianne 2002).

Despite limited research on parents' views on sources of HCI for their child, the advent of the internet appears to have raised some curiosity about this issue. For example, Ikemba et al (2002) surveyed parents of children with congenital heart disease to identify levels of access and use of the internet to obtain information about their child's illness. They found that 58% of the 275

respondents had access to the internet and a further 58% of this number had used the internet and found it helpful to obtain HCI about their child.

Nevertheless, Ikemba et al (2002) warn of the hazards in term of standards, accuracy and currency of information accessed on the internet for parents relying on this means of securing child health information (CHI). Haddow and Watts (2003), who researched the quality of internet information in relation to caring for a febrile child also found this to be generally poor when measured against information identified on a Best Practice Information Sheet related to the management of fever in children (The Joanna Briggs Institute 2001). Despite this, the number of websites available to parents seeking information about child health appears to be growing in number and user friendliness (Long et al 2001).

When the survey for the KKL (Part 1 of the study) was being developed it was decided to add three further questions designed to identify parents' preferences in sources of CHI in a non urgent situation when their child was sick; in an emergency situation when their child was sick; and, thirdly, in order to gain information about the general health needs of their child. Analysis of data related to these three questions comprised Part 2 of the study.

METHOD

Aim:

To ascertain parents' preferences in sources of health information concerning their children's general health care needs, and caring for their children when they are sick.

Ethics Clearance:

Ethics clearance for the study was obtained from the University of Newcastle and the Hunter Area Health Service Human Research Ethics Committees. Prior to commencement of the study, a meeting with nurses working on the KKL was convened to discuss both its parts and seek these nurses' assistance with it. These nurses were interested in the study and in its findings.

Recruitment

For a three month period, commencing in February 2002, parents who telephoned the KKL were asked, at the conversation's conclusion – by the KKL nurse responding to their call – if they would like to receive information about the study. Names and addresses of those parents who wished to receive this information were documented on a form provided. The Research Assistant (RA) collected this form, and posted an information package comprising an information letter, consent form and stamped addressed envelope for its return to each parent. Subsequently, the RA telephoned consenting parents to arrange a time to administer the study's telephone survey.

The Survey

The design of questions posed on Part 1 and Part 2 of the study's survey was informed by the literature. The three questions comprising Part 2 of the survey aimed to identify information about three situations in which parents might seek CHI: in a general situation of child illness; in an emergency situation of child illness; and in a situation where parents required general CHI. The survey was administered by the study's RA via a telephone call, at a pre-arranged date and time, to each consenting parent, and data were entered into a database immediately subsequent to the conclusion of the call.

A total of 1487 calls were received by the KKL in the 12 weeks during which parents were asked if they wished to receive information about the study. Of this number, 350 (24%) parents expressed interest in receiving this information. Of these 350, 112 (32%) parents consented to participate in the study. Ultimately, 101 of these parents responded to Part 1 of the study and 100 to Part 2.

Following the completion of 10 surveys, the chief investigator and the RA met to review survey responses with the result that one question in Part 1 of the study was adjusted in terms of the language used in its expression. As in Poole et al's (1993) study, inter-rater reliability of the survey was assessed by a second blinded caller administering the survey to 10% (n=10) of parents a second time.

DATA ANALYSIS

Data analysis for Part 2 of the study comprised categorical analysis for the identification of frequencies, as well as qualitative content analysis to structure data from the survey's open ended questions (Brink and Wood 1994). Qualitative content analysis comprised reading each open ended question to develop categories which described the participants' responses.

RESULTS

The first question relating to parents' preferences in sources of information relating to their child's health asked:

What is the best way for you to get information about caring for your sick child in a non-urgent situation?

The 100 parents who responded to this question often selected more than one information source. In total 170 selections were made (see table 1).

The three most frequently identified information categories were telephone advice line 58; general

practitioner (GP) 27 and other 24. 'Other' related to: books, (identified by 9 participants); internet (7), chemist (or pharmacist) (7); paediatrician, (1) and library (1).

'Telephone advice line' was not further specified in the survey. However, the study's RA noted that parents most frequently identified this as the KKL. One participant endorsed this saying: *'As we live a long way from town I read a lot and feel I know his problems and treatments well. I find that the KKL is a very good sounding board and I learn something more every time I phone,'* and a second that: *'Kids seem to get sick outside of normal hours and the KKL is available. It is great to know that there are professional people who are able to answer my questions.*'

One mother who identified 'GP' as well as the 'telephone advice line' commented *'During working hours I would contact our GP. Out of hours I would phone the KKL. I would like to see the KKL hours extended to cover all out of hours when GPs are not usually contactable, especially in the middle of the night.'*

Seven participants identified 'nurse' as a source of CHI for their sick child. The RA commented that this sometimes meant the child and family health nurse and sometimes a friend or relative who was a nurse. One parent commented *'A lot of my friends are nurses and I have always got sound advice from them. I think nurses are wonderful!'* The four least selected sources of information in response to this question were: 'other' health professional (3); magazines (1); video (1) and television (0).

Qualitative content analysis of the parents' rationale for their selection identified: availability (especially when other services are closed); accessibility; reliability; knowledge; reassurance; experience; timeliness; convenience and dependability.

The second question in Part 2 asked:

What is the best way for you to get information about caring for your sick child in an emergency situation?

Some of the 100 respondents again selected more than one information source. In total 129 selections were made (see table 2).

The most frequently selected categories were: telephone advice line (74); 'other' (31) and GP (16). On this occasion 58 of the 74 parents who selected telephone advice line, identified this as being the KKL. For example one parent said: *'I think the KKL is the best way because it is a phone call [to] a local hospital that specialises in children.'* Another commented: *'Depending on the time of day, I would phone the KKL because they are easy to get on to and I have always had all my questions answered when I call. Saves a trip to the A and E (Accident and Emergency) if possible.'* A further caller who identified the KKL as her preferred information source recognised a need not to overload A and E unnecessarily. She said *'I would phone the KKL first so as not to waste the time of doctors and nurses in Accident and Emergency unnecessarily. I trust their advice.'*

'Other' in this instance almost always meant telephoning 000 and/or taking the child to the hospital/accident and emergency department because he/she would need to see a doctor. One participant suggested that 'other' meant taking the child to the GP. Three participants said they would 'call an ambulance' and another said, *'We live very close to the (ambulance) station and I think I would just go straight there in an emergency.'*

Some parents who indicated a preference in an emergency for visiting a GP noted this depended on the GP's hours of business. Their comments included: *'If the doctor is open I would ring him. He knows me and most*

Table 1: Sources from which parents seek information in a non-urgent situation when their child is sick.

Information Source	Parents' Preferences
Telephone Advice Line	58
General practitioner	27
Other	24
Relatives	16
Child health clinic	14
Friends	11
Leaflet	8
Nurse	7
Other health professional	3
Magazines	1
Video	1
Television	0
Total	**170**

Table 2: Sources from which parents seek information in an emergency situation when their child is sick.

Information Source	Parents' Preferences
Telephone advice line	74
Other	31
General practitioner	16
Relative	3
Nurse	2
Child health clinic	1
Other health professional	1
Friend	1
Leaflet	0
Magazine	0
Video	0
Television	0
Total	**129**

of the problems I have are related to my son's asthma. If I can't get in touch with the GP I phone the KKL because they have always been able to give me advice on what to do.' One mother stated that her GP referred her to the KKL saying: *'As we live in…, there is no paediatric service at the hospital. We phone our GP at home if necessary to get advice. He will often advise us to call the KKL.'*

The four categories of information sources that parents least frequently selected were: leaflet (0): magazine (0); video (0) and television (0). Themes in parents' rationale for their selection were: immediacy; emergency; after hours; availability; reliability; sensitivity; accessibility; trust and knowledge/advice.

Finally, parents participating in the study were asked:

What is the best way for you to get information about the general health needs of your child?

Once again the 100 parents who responded to this question frequently selected more than one category of information source. There was a noticeable change in the type of category which scored highest in this question (see table 3) in that, instead of being those most easily accessible, especially in an after-hours situation, services and health professionals who operated during office hours featured most prominently. Therefore, in response to this question the three most frequently selected categories were: 'other' (40); child health clinic (35) and general practitioner (30). 'Other' in this instance comprised: books (23); internet (12); chemist/pharmacist (5); newsletter (2) and poster (1).

Twenty seven of the comments made in relation to this question specifically identified the 'clinic sister/early childhood nurse' and they generally related to:

Table 3: Sources from which parents seek information about the general health needs of their child.

Information Source	Parents' Preferences
Other	40
Child health clinic	35
General practitioner	30
Friend	17
Relative	16
Telephone advice line	15
Leaflet	12
Magazine	10
Nurse	6
Other health professional	2
Television	2
Video	0
Total	**185**

- the opportunity this (attendance at early childhood clinics) gives to obtain regular information;
- the mother feeling comfortable about talking with the early childhood (clinic) nurse; and
- the early childhood (clinic) nurse's information being reliable.

The following comment typifies those made about the 'clinic' nurses: *'I feel very comfortable with the advice I get from my clinic sister and she is very informative.'*

Parent's also frequently mentioned GPs (though less frequently than early childhood/clinic nurses) and these comments referred to the GP's reliability, knowledge of the family's medical records and that parents felt comfortable talking to them.

The four categories least frequently identified in response to this question were: nurses (6) (apparently not including child and family health nurses); other health professional (2); television (2) and video (0). Themes in parents' rationale for their selection were: feeling comfortable; accessibility; trust and knowledge/experience.

DISCUSSION

This study sought to identify parents' preferences in sources of CHI in three situations: in a non-urgent situation; in an emergency situation and in a situation of their child's general health care needs. There appears to be very little, if any, research into this aspect of health information, with the majority of research focusing on the information needs of parents whose children have specific health care needs (De Serres, Duval and Boulianne, 2002; Ikemba et al 2002), or the general context of CHI service development (Glasper et al 1995).

The study's findings identify that in an emergency or non-urgent situation, relating to a sick child, parents prefer information sources that provide person to person contact found in services such as telephone triage and/or emergency services. In an emergency situation the attraction of this type of information source is its immediacy, accessibility and availability, especially after hours, and the dependability of the knowledge provided.

Nevertheless, it is unexpected that the KKL proved so popular in an emergency situation (58 of the 74 parents who selected telephone advice line identified this as the KKL) as a true emergency often requires treatment from a paramedic (obtained by telephoning 000) and/or immediate transfer to hospital. This reasoning appears justified from the finding that 31 parents who identified 'other' in this emergency situation identified this as telephoning 000 or taking their child to an emergency department because he/she would need to see a doctor.

However, parents may perceive that the nurses who operate the KKL, whom they identified as trustworthy and knowledgeable, are able to provide immediate

information relevant to the sick child's needs pending the arrival of emergency services.

In a general situation, in which parents seek information about their sick child, parents identified that their preferences were influenced by availability (particularly after hours), accessibility, convenience, dependability and reassurance. Surprisingly, however, given its accessibility, few parents identified a preference for the internet in this situation. This may be because the internet may not be widely available to parents and/or that parents question the reliability of internet information about child health (Haddow and Watts 2003). Parents' preferences in information sources in this situation also revealed that magazines (1), videos (1) and television (0) were the least preferred sources of CHI. Yet each of these is used to provide CHI in the form of documentaries and advertisements (television), articles/parents' stories about health issues related to their child (magazines) and promotional material (videos).

The picture changes when parents seek general health care information relating to their child. Here the majority of parents identified that they use 'other' (40) sources of information including books (23), the internet (12), chemist (5), newsletters (2) and posters (1). The child health clinic was identified as the second most important source of information in this situation, followed by GPs. From this, it is apparent the need for 'after hours' services diminishes in this situation. In addition, parents' comments revealed that they perceive the 'clinic sister/early childhood nurse', who cares for the parent and child, as a reliable and regular source of information. However, while magazines (10) are comparatively attractive in this context, television (2) and videos (0) are still identified as the least attractive source.

Themes emerging from parents' rationale for their selection of the above information sources included 'feeling comfortable', accessibility (of the resource), and trust in, and knowledge and expertise of the staff/service. Feeling comfortable was mentioned mainly in connection with interaction with the child and family health nurse (and once with a chemist and twice with GPs). It appears the regularity of their visits to the child and family health nurses (the clinic sister/early childhood nurse) enabled parents to build a relationship with this person, which, in turn, enabled them to ask questions and seek the information they required.

There are several important issues arising from this study which affect nursing practice development. Firstly because the KKL and services similar to it are operated by registered nurses, and parents rely and respect the knowledge that the nurses share with them, it is important these nurses ensure their knowledge remains current. It is also important that it is provided to often anxious parents in a user friendly way. This also requires these nurses to have excellent listening and assessment skills.

Further, because of the legal implications of telephone triage (Coleman 1997) it is imperative that a clear and succinct record is kept of each telephone call. A further important factor for nurses operating telephone triage services is that they have access to, and contribute to, the identification and currency of policies so as to ensure best practice in the advice they provide and in the consistency with which this advice is provided. Nurses operating telephone triage services also need to be familiar with (and have access to information about) their local network of health and social care services so that they can refer parents to these services when appropriate.

While the discussion relating to clinical practice development has so far concerned nurses operating telephone triage services, it is none the less relevant to nurses working with parents and their children as well as in adult services in all areas of the health care system. Findings from the study are particularly relevant for child and family health nurses, who, like their counterparts in telephone triage services, were identified by parents seeking general CHI as of key importance. This finding relates to the opportunity that a visit with the child and family health nurse brings to build relationships between parents and nurse. However, this relies on parents being able to visit the same nurse if they are to be able to build a relationship they value, and this, in turn, has implications for staff scheduling and workload assessments.

Finally, the study's finding that when a child is sick, parents prefer sources of CHI that provide person to person contact with them, impacts on the feasibility of maintaining or extending this level of contact within the bounds of human and economic resource constraints. However, when addressing this issue, it is worth considering that resources devoted to designing and producing videos and television advertisements/programs relating to CHI may be better directed towards enabling human contact for parents seeking this information.

LIMITATIONS

A limitation of the study was the number of parents consenting to participate given that 1487 calls were received in the period during which parents were asked if they were willing to receive the study's information. In addition, the study comprised only a snapshot of parents' preferences in sources of CHI. The fact that parents were recruited from those who had telephoned the KKL may also have biased their responses toward favouring it as a source of CHI. A further limitation was the lack of specificity (for example in 'telephone advice line') in some of the categories identified in the questions relating to sources of CHI.

CONCLUSION

This study identified parents' preference for person to person contact when seeking health information relating to their child, particularly when he/she is generally sick or

in an emergency situation which compromises the child's health. Frequently providers of this information are registered nurses, emphasising the need for these nurses to ensure their currency of practice; familiarity with policy and health care networks; and their ability to communicate effectively.

More extensive studies are required to validate the study's findings. It is also important that those seeking to disseminate CHI take parents' preferences – in sources from which to access this information – into account. A further recommendation is that nurses working with parents and children (and more generally) continually update their knowledge and ensure their ability to provide health information in an informed, 'user friendly' manner, recognising the value parents place on it and their reliance on its quality.

REFERENCES

Brink, P.J. and Wood, M. J. 1994. *Basic steps in planning nursing research: from question to response.* 4th edn. Boston: Jones and Bartlett.

Coleman, A. 1997. Where do I stand? Legal implications of telephone triage. *Journal of Clinical Nursing*. 6(3):227-231.

De Serres, G., Duval, B. and Boulianne, N. 2002. Impact of vaccine cost and information about complications of varicella on parental decision regarding varicella vaccine. *Canadian Journal of Public Health*. 93(2):114-116.

Glasper, E.A., Lowson, S., Manager, R. and Phillips, L. 1995. Developing a centre for health information and promotion. *British Journal of Nursing*. 4(12):693-697.

Gobis, L.J. 1997. Legally speaking: reducing the risk of phone triage. *RN*. 60(6):61-63.

Haddow, G. and Watts, R. 2003. Caring for a febrile child: the quality of internet information. *Collegian*. 10(2):7-12.

Ikemba, C.M., Kozinetz, C.A., Feltes, T.F., Fraser, C.D., McKenzie, E.D., Shah, N. and Mott, A.R. 2002. Internet use in families with children requiring cardiac surgery for congenital heart disease. *Pediatrics*. 109(3):419-422.

Joanna Briggs Institute 2001. Management of the child with fever. *Best Practice*. 5(5):1-6.

Lee, A., Tsang, C., Lee, S.H. and To, C.Y. 2003. A comprehensive 'Healthy Schools Programme' to promote school health: the Hong Kong experience in joining the effort of health and education sectors. *Journal of Epidemiology and Community Health*. 57(3):174-183.

Long, C.O., Greenberg, E.A., Isemeurt, R.L. and McGrath, J.M. 2001. Pediatric and family web sites. *Home Healthcare Nurse*. 19(9):533-534.

Poole, S.R., Schmitt, B.D., Carruth, T., Peterson-Smith, A. and Slusarski, M. 1993. After-hours telephone coverage: the application of an area-wide telephone triage and advice system for pediatric patients. *Pediatrics*, 92(5):670-679.

Wilkinson, C.S., Przestrzelski, D., Duff, I. and Hite, K.J. 2000. Competency-based telephone triage curriculum. *Lippincott's Case Management*. 5(4):141-147.