Celebrating the health literacy skills and capabilities of parents in Stoke-on-Trent:

A Photovoice Study

Emee Vida Estacio, Lavinia Nathan, and Joanne Protheroe

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Contact author:
Dr Emee Vida Estacio
School of Psychology
Keele University
ST5 5BG
e.v.g.estacio@keele.ac.uk

Conflict of interests
None declared.

Abstract

Parents play a vital role in promoting children's health. The parental health literacy skills are important since the decisions they make can have an impact on other family members' health and well-being. Using an assets-based approach, this project aimed to explore the skills parents use to communicate health messages with their children and how they manage their family's health. Six adult parents of children aged 0-16 years old took part in this Photovoice study. The thematic analysis suggests that tapping into the creativity of parents through the gamification of health messages and encouraging children's independence are effective ways to promote healthy behaviours. Trusting their instincts and developing good relationships with healthcare providers were also seen as important. However, there is still a need to improve confidence and skills, particularly on how to critically appraise information, especially in this digital age where sources of information are vast and conflicting messages could arise.

Keywords: health literacy; assets-based approach; photovoice; parents

Celebrating the health literacy skills of parents: A Photovoice Study

Health literacy can be defined as "personal characteristics and social resources needed for individuals and communities to access, understand, appraise and use information and services to make decisions about health" (Dodson, et. al., 2015). It is about the skills, abilities and resources that people can use to make informed decisions about health and well-being. Health literacy can be developed by tapping into personal skills, abilities and experiences, as well as into social and environmental resources, including families, friends, health professionals and wider community networks (Sorensen, 2012).

What health literacy means as a concept has evolved extensively over the past two decades (Nutbeam, 2008). However, the bulk of health literacy research still adopts a deficit model of health literacy. Assessments of health literacy have focused on measuring functional literacy skills of individuals (i.e., reading and numeracy). While establishing quantitative measures has its merits, there is a need to shift health literacy research and practice at community and societal levels to incorporate factors that are beyond the control of the individual (Guzys, et al., 2015). Apart from assessing the health literacy levels of individuals, exploring people's lived experiences, the context in which they live in, and the intricacies of how they engage with their families, communities and support networks, can provide depth and meaningful insights that can be used for intervention and strategy development (Protheroe & Nutbeam, 2009).

Re-framing health literacy as an asset could be beneficial in theory and in practice (Pleasant, et al., 2015). Rather than viewing health literacy as something that individuals lack; health literacy can be conceptualized as something that can be developed and used to enable people to make decisions related to health (Nutbeam, 2000). This approach encompasses resources that span across personal, social and environmental avenues (Nutbeam, 2008). An assets-based approach to health promotion recognizes and appreciates the role of the community in health promotion and practice (Roy, 2017). This approach builds upon already existing competencies and strengths that enable citizens to understand the dynamics of the social determinants of health (Cameron & Wasacase, 2017). Promoting health literacy plays a crucial role on building this capacity by enabling individuals and communities to respond to policies and actions that affect their health and well-being (McCormack, et al., 2017; Sykes, et al., 2017).

Considering the vital role parents play in promoting children's health, it is important to understand how parents use their health literacy skills and the resources they require to promote and maintain their family's health and well-being. Promoting the health literacy skills of parents is important since health decisions they make can have an impact on the health and wellbeing of other family members. Parental health literacy is also correlated with parents' health-related knowledge and behaviors, and more generally, with their children's health outcomes (DeWalt & Hink, 2009; Wharf, et al., 2009). Developing and supporting health literacy skills is particularly important among parents of young children and those with complex needs (Chisolm, et al., 2015; Bröder, et al., 2017). Understanding the current resources and skills that parents draw upon to promote and maintain their family's health can provide useful insights into how these can be maximized and what additional support may be required.

Using an assets-based and systems approach (Kretzmann & McKnight, 1996), this project aimed to 1) explore the skills parents use to communicate health-related messages with their children and to manage their children's health; and 2) inform how tapping into parents' capabilities can be used to design interventions to improve the health literacy of families. This paper presents a study that used Photovoice to engage parents of young children in the process of reflecting, recording and discussing their experiences of managing their family's health.

Photovoice (PV) is a participatory and qualitative technique that enables people to document and share their experiences through photographs (Wang & Burris, 1994). This method allows in-depth exploration of the participants' experiences which quantitative health literacy assessments cannot achieve. By enabling participants to record and reflect on their experiences, rich insights about their lives are produced, which can later be shared, reflected and acted upon more widely.

Health psychology researchers have used this approach to explore the experiences of vulnerable populations (Brinton Lykes, 2000; Scheib & Brinton Lykes, 2013; Williams, Sheffield, & Knibb, 2014). By combining visual images with individual and/or group discussions, PV has been proven as a useful technique in engaging people who lack verbal fluency or who have different cultural and linguistic backgrounds (Haaken & O'Neill, 2013). As a community engagement strategy, PV is also a technique that can be used to challenge conventional politics of representation by putting people in charge of how they document their own lives and by involving vulnerable respondents more effectively in health promotion and community development (Vaughan, 2014; Lee, Pollock, Lubek, Niemi, O'Brien, Green, ... & Ma, 2010).

Method

Context

We have been working closely with Stoke-on-Trent (SOT) City Council Public Health to understand and promote health literacy in the area. SOT is located in the West Midlands, with nearly a third of its residents being classified amongst the 10% most deprived in England. Disparities in income and health vary across the different geographical locations in the city. In a recent survey, over half (52%) of its residents demonstrated less than adequate health literacy levels which were associated with sociodemographic factors such as age, educational level, income, and overall health status (Protheroe, Case, Bartlam, Estacio, Clark, & Kurth, 2016). Access and use of the internet for health purpose were also associated with health literacy (Estacio, Case, & Protheroe, 2017), which infers that those with adequate levels of health literacy were more likely to access health information and services available online.

Literacy is a priority in Stoke-on-Trent. As part of this commitment, the city has signed up to become a Literacy Hub, which encourages partnerships and programmes across the city to promote literacy skills in the area, particularly in primary schools and early years centres. Extensive research, community consultation, training and partnership with key stakeholders have been carried out to develop a city-wide strategy to promote health literacy in Stoke-on-Trent (Estacio, Oliver, Downing, Kurth, & Protheroe, 2017). This strategy consists of developing and implementing several interventions that aim to translate ideas into practical actions. One of the key priorities identified was to promote health literacy through Early Years Interventions, which involves early learning programmes for very young children aged birth to six years. It was acknowledged that promoting health at an early age is crucial to addressing existing health inequalities in the city.

Participants

We worked with City Central Library, North Stoke and Crescent Children Centres to recruit adult parents (18 years or over) of young children. Since we were working in partnership with Stoke-on-Trent (SOT) City Council Public Health, the inclusion criteria required that participants were residents in this city. Participants were recruited through already existing parent groups in children's centres in the area. Potential participants were given an information sheet and were asked to sign a consent form before agreeing to take part. In total, six participants took part. All participants were female,

aged 31 to 43 years old, all of whom completed all stages of the project. On average, participants had two children each, with a mean child's age of 4.4 years old (range: 7 months to 10 years old).

Procedure

Potential participants were invited to a workshop to discuss the aims of the project. During this workshop, the information sheet was discussed in detail and potential participants were invited to ask questions before agreeing to take part. Once they have agreed, they were asked to sign a consent form.

Participants who agreed to take part were then asked to take photographs relating to their experiences of looking after their children's health. They were offered a disposable camera to use, however, all participants opted to use their own cameras. After two weeks of taking photos, the participants were invited to a focus group discussion. In the focus groups, they were asked to talk about these photographs, elaborate on the story and context behind these, and why they have chosen to take these photos. The topic guide for the focus groups was designed by EE and facilitated by LN. The discussions were audio recorded, transcribed and analyzed qualitatively.

Ethics

This study complied with the British Psychological Society's ethical guidance and received ethics approval from Keele University Research Ethics Committee. No personal information was collected apart from general demographic information. These were reported collectively so that participants cannot be identified individually. When taking photographs, participants were reminded to protect and respect other people's privacy. They were also asked to get written consent from people if they were to be photographed. Photos with faces were censored. When writing up the findings, all data were anonymised and information that may identify participants were deleted.

Data analysis

The focus groups were transcribed verbatim and analyzed using thematic analysis. Braun and Clark's (2006) guide was followed, which involved: familiarization with the data, generation of initial codes, searching for themes, reviewing themes, defining and naming themes and writing the report. Transcripts were coded separately and discussed as a team. The themes were discussed and reviewed alongside the photographs. All authors discussed and agreed on the final themes.

Analysis

Theme 1: Strategies used by parents

This theme reflects the strategies participants used to promote healthy behavior in the household. Parents shared what strategies they thought worked well in encouraging their children to practice healthy behaviours and routines.

Making routines fun. Parents identified that making routines into fun and engaging games for the children would help them to learn and embrace health-related practices more openly. One participant found that using songs and games helped to assist children in practicing health regimens at home, especially when learning how to brush their teeth.

> "we try to make it fun and use games, um, it's quite hard you know, if a two year old doesn't want to open their mouth, they're not going to open their mouth are they, but we have done it from when he started getting teeth and have tried to make it fun with singing and things like that" (Lauren, 36 years)

Promoting and teaching children healthy practices in fun and engaging methods is a consistent technique that parents use. This shows that parents see what works well with children and help them in the best way for them. This participant mentioned further that there are other means to engage children in activity and make health practices fun.

> "You can use different things to get the kids active. It doesn't have to be walking, it doesn't have to be running down the street a lot. It can be using things like scooters 'cause that again promotes them to do some form of exercise and something they like. They're often just using it as a toy but it can be used as a form of exercise as well" (Lauren, 36 years)

This reflects how parents use a variety of tools alongside the fun activities to encourage children to practice healthy regimens. Parents understand that using tools and equipment children are familiar with can assist in encouraging health literacy in children.

INSERT FIGURE 1 HERE

Encouraging independence. Participants in this study expressed that they also tried to promote independence in healthy practices to encourage children to learn to carry on with these practices by themselves. One participant mentioned that it was better if the child was independent because the child preferred to do so.

> "I found that he brushed his teeth more if he did it himself. If he opens his mouth and lets me do it, within two minutes or within half a minute he would've clamped his jaw shut and you couldn't brush him so I'd rather give him the independence to learn how to brush his teeth with a little bit of assistance rather than me doing it for him" (Rose, 32 years)

There may be times wherein children insisted on being independent. When these scenarios arise, the participants mentioned that they simply supervised and assisted the child. The participants noted that their children were more likely to adhere to health practices if they did it by themselves. Therefore the participants often will try to adjust their strategies to ensure they are encouraging independence and only offer assistance and guidance when needed.

Another participant also mentioned that her child is independent when it comes to managing her asthma. The child learned how to manage her condition herself as it had become part of the daily routine. The parent only reminds and assists the child when needed.

> "And then this is [child's name] taking her inhaler, um, again it's a daily activity that she does so it felt like a bit easier photo for me to take, um because she's doing it all the time um, but she's independent. I don't normally see her doing the- taking her inhaler, she just- she takes it in the morning, when she wakes, when she's dressed for school and again before she goes to bed at night when I took her in at night I'd ask, "have you had your inhaler" and she'll say "yes" so I don't actually do any of that now. I sort of ask her to do it" (Sophie, 43 years)

This portrays the strategy of giving the child independence in learning health practices and managing their health themselves. As children want to be independent, parents amend their methods to teach children healthy behaviours. Parents also understand that they should still be supervising and assisting children to make sure that they are to a good standard. As children get older, parents remind their children about their health regimens to ensure that they are still adhering to it.

INSERT FIGURE 2 HERE

Leaning on services available. Participants also mentioned that services like breastfeeding support and schools have helped them to consolidate health practices taught at home. One participant explains the tools schools provide to promote healthy eating in children.

> "Leaflets like this from school uh letters to encourage parents to carry on with support which has started in school, send letters send continuously leaflets because we always forget about this. Because life is difficult and we always busy, we always go to easiest option for us, so this kind of support, leaflets, letters, is a good one." (Rene, 33 years)

Having the support from school encourages parents to make a difference in daily routines and promote health literacy in children. Participants in this study usually trust the materials given by schools; therefore they rely on it to help them promote health practices at home as well. Parents from this study have busy lifestyles, thus having the school to support them is beneficial and reassures parents of their skills and strategies in promoting health literacy in their children.

INSERT FIGURE 3 HERE

Theme 2: Parental strengths

This theme reflects the strengths parents draw upon to encourage healthy behaviours in the family. In particular, they rely on their instincts and their insider knowledge of their own children. They also draw upon supportive relationships which enable them to function effectively as guardians of their children's health.

Trusting own knowledge of child. Participants from this study noted the importance of trusting their knowledge of their child when encouraging healthy behaviours.

> "Yeah so have confidence in your own parenting" (Lauren, 36 years)

Participants reflected on the need to be confident in their parenting skills and trust their own judgement of their child's health. This means trusting that they know what their child needs and what works best for them. However, this may also mean taking into consideration the advice of health professionals when needed.

> "I think it's also as well parents should listen to themselves as well as listen to the health, not saying that we know best or all the time but we know our children" (Nora, 31 years)

Thus personal judgment goes side by side with professional advice. Participants consider the advice of healthcare workers and adjust their decisions and behaviours accordingly.

Maintaining supportive relationships. Participants from this study also reflected on their relationships with health professionals and how important it is to have good relationships with them. They also noted that having these relationships can set an example for children to maintain relationships with healthcare professionals.

> "[health care professionals] needs to develop a relationship with the child to make them feel safe and secure and going into a dentist's room, it's so different and alien to what a child is used to…" (Sophie, 43 years)

Maintaining relationships with healthcare professionals can help to reassure children that they can trust them and that they can rely on them when they need help. The participants mentioned that the relationship built between healthcare professionals and their children can help their children to build trust and seek advice from healthcare professionals when reliable health information is required.

Despite the importance of maintaining good relationships with healthcare professionals, participants noted that there may be other parents who may be too afraid to seek out these supportive relationships.

> "Don't be scared to like go to children centres and things like that and get support like, I think there should be more like about the support that you can receive at the centres" (Lauren, 36 years)

Participants also noted that relying on support from places like children centres will be beneficial, particularly among new parents. Moreover, awareness should be raised about the support parents can receive as this is a key supportive relationship parents can have when looking after their children.

Theme 3: Parental worries

Although participants from this study reflected on their strengths and the resources available to support their ability to promote health in their families, some concerns were still raised. These include issues around the use of support services and irregularities of health information from different sources. Participants highlighted the importance of being confident about information and knowing what to do with these.

Confusion with health information sources. Participants voiced their concerns about conflicting sources of health information. One parent shared her experiences of discussing how medication doses are different depending on the child's weight.

> "Health professional would obviously, would struggle on that but the pharmacy has kind of overlooked it in and agreed that it is alright." (Nora, 31 years)

If different health professionals are not in agreement on a health issue, parents have a difficult time to judge the situation and make a decision. Another parent found that it may be due to information changing over time and parents are not aware of these changes.

> "…it's like, [pauses] a bit confusing especially when me sister was like, oh we used to do this not like, they told me not to do that now. How can they change them that quick? 'Cause even that space of time isn't that long really, how can they change how they're running things, like, one day it's good for you and then the next day it's bad for you." (Rene, 32 years)

Participants from this study tend to seek support from family when confusion arises but still see the disagreement in accuracy of information. Some parents may find it difficult to understand why health information changes over time. There may also be difficulties in understanding and deciding which version of health information they should follow. This can result in some parents following advice that is out of date, especially if they are unable to identify reliable and updated information.

Less confidence without support. Participants from this study also noted that some parents may feel less confident about their parenting skills when social support is unavailable. They noted that it would be beneficial to reassure parents when they are doing well with their children's health and for them to receive more encouragement to promote health literacy at home. One parent shared her thoughts on families that are not in sync with health literacy being taught at school.

> "If you haven't got them skills and your kids goes to school and they're trying to teach them, they're coming home and they're like well me mum don't know it so why should I?" (Rene, 32 years)

This shows some insight into parents' role in teaching healthy practices to children. Participants from this study noted that they act as role models to their children. Parents are there to consolidate and encourage health literacy at home and at school. If parents are not in line with the health literacy that is taught at school, it can have an impact on their children's knowledge, attitudes and behaviors towards health and wellbeing.

Discussion

This research contributes to the evolving nature of health literacy (Nutbeam, 2008), which now encompasses personal, community and social resources that are beyond the scope of the individual (Guzys, et al., 2015). Using Photovoice as a research method (Wang & Burris, 1994) enabled the exploration of skills and resources parents use to communicate health-related messages with their children and to manage their family's health.

Findings suggest that tapping into the creativity of parents through the gamification of health messages is an effective way to promote healthy behaviours. Promoting children's independence also encourages this and helps to keep healthy routines sustainable. Findings also highlighted the importance of recognising parents' instincts, trusting their own knowledge of their children, and building a good relationship with healthcare providers. However, the need to improve confidence

and skills, particularly on how to critically appraise information was also raised as an area of concern, especially in this digital age where sources of information are vast and conflicting messages could arise.

By looking into assets rather than focusing on deficits (Kretzmann & McKnight, 1996), interventions can be developed that can maximize these strengths. The development of interventions to embed learnings from this research is still underway. Communication and engagement with partners is still on-going (see Estacio, Oliver, et. al., 2017). In relation to the services currently provided in Stoke-on-Trent, several projects have been developed that support health literacy among parents and children. For example, the Early Years Story Boxes developed by Stoke Speaks Out, supports the development of children's health literacy through the gamification of health vocabulary, which is in line with the findings of this study. In addition, the 'It's OK to Ask Campaign' led by the University Hospital North Staffordshire encourages patients and visitors to ask questions, especially if the information provided is unclear. This can help to develop better relationships by encouraging open communication between healthcare professionals and parents of young children.

Although findings from this research may be useful in developing interventions, it should be noted that participants in this study are parents of children who are already engaged in health literacy initiatives and are using the libraries and children's centres in the area. This study is also exploratory in nature, and therefore conclusions need to be treated as such. Future research will need to reach those who may not be accessing these resources and a wider sample that compares the experiences of those who do access to these services and those who do not would be useful. Parents who are not using public services may offer additional insights and are potentially using untapped strategies that enable them to promote health literacy in their household.

Whilst our participants in this study come from a community that has less than adequate functional health levels, this paper highlights that residents in these communities have capabilities that enable them to promote health and well-being in their families despite their circumstances. Drawing upon an assets-based approach (Roy, 2017), these strengths need to be cultivated to enable families to further hone the skills that will enable them respond to factors that impact upon their health and well-being. Leveraging on already existing capabilities is important in designing and implementing health literacy strategies especially in these communities.

References

Bröder, J., Okan, O., Bauer, U., Bruland, D., Schlupp, S., Bollweg, T. M., ... & Jordan, S. (2017). Health literacy in childhood and youth: a systematic review of definitions and models. *BMC public health, 17*(1), 361.

Cameron, C., & Wasacase, T. (2017). Community-Driven Health Impact Assessment and Asset-Based Community Development: An Innovate Path to Community Well-Being. In *Handbook of Community Well-Being Research (pp. 239-259)*. Springer Netherlands.

Chisolm, D. J., Sarkar, M., Kelleher, K. J., & Sanders, L. M. (2015). Predictors of health literacy and numeracy concordance among adolescents with special health care needs and their parents. *Journal of Health Communication, 20*(sup2), 43-49.

DeWalt, D. A., & Hink, A. (2009). Health literacy and child health outcomes: a systematic review of the literature. *Pediatrics, 124(Supplement 3),* S265-S274.

Dodson, S., Good, S., & Osborne, R.H. (2015). *Health literacy toolkit for low and middle-income countries: a series of information sheets to empower communities and strengthen health systems.* New Delhi: World Health Organization, Regional Office for South-East Asia.

Estacio, E. V., Oliver, M., Downing, B., Kurth, J., & Protheroe, J. (2017). Effective Partnership in Community-Based Health Promotion: Lessons from the Health Literacy Partnership. *International journal of environmental research and public health*, *14*(12), 1550.

Estacio, E. V., Whittle, R., & Protheroe, J. (in press). The digital divide: Examining socio-demographic factors associated with health literacy, access and use of internet to seek health information. *Journal of Health Psychology*.

Guzys, D., Kenny, A., Dickson-Swift, V., & Threlkeld, G. (2015). A critical review of population health literacy assessment. *BMC Public Health, 15*(1), 215.

Haaken, J. K., & O'Neill, M. (2014). Moving images: Psychoanalytically informed visual methods in documenting the lives of women migrants and asylum seekers. *Journal of Health Psychology*, *19*(1), 79-89.

Kretzmann, J., & McKnight, J. P. (1996). Assets-based community development. *National Civic Review, 85*(4), 23-29.

Lee, H., Pollock, G., Lubek, I., Niemi, S., O'Brien, K., Green, M., ... & Ma, V. (2010). Creating new career pathways to reduce poverty, illiteracy and health risks, while transforming and empowering Cambodian women's lives. *Journal of health psychology*, *15*(7), 982-992.

Lykes, M. B. (2000). Possible contributions of a psychology of liberation: Whither health and human rights?. *Journal of Health Psychology*, *5*(3), 383-397.

McCormack, L., Thomas, V., Lewis, M. A., & Rudd, R. (2017). Improving low health literacy and patient engagement: a social ecological approach. *Patient Education and Counseling, 100*(1), 8-13.

Nutbeam, D. (2000). Health literacy as a public health goal: a challenge for contemporary health education and communication strategies into the 21st century. *Health Promotion International, 15*(3), 259-267.

Nutbeam, D. (2008). The evolving concept of health literacy. *Social Science & Medicine, 67*(12), 2072-2078.

Pleasant, A., Cabe, J., Patel, K., Cosenza, J., & Carmona, R. (2015). Health literacy research and practice: A needed paradigm shift. *Health Communication, 30*(12), 1176-1180.

Protheroe, J., & Nutbeam, D. (2009). Health literacy: a necessity for increasing participation in health care. British journal of general practice, 59(567), 721-723.

Protheroe, J., Whittle, R., Bartlam, B., Estacio, E. V., Clark, L., & Kurth, J. (2017). Health literacy, associated lifestyle and demographic factors in adult population of an English city: a cross-sectional survey. *Health Expectations*, *20*(1), 112-119.

Roy, M. J. (2017). The assets-based approach: furthering a neoliberal agenda or rediscovering the old public health? a critical examination of practitioner discourses. *Critical Public Health, 27*(4), 455-464.

Scheib, H. A., & Lykes, M. B. (2013). African American and Latina community health workers engage PhotoPAR as a resource in a post-disaster context: Katrina at 5 years. *Journal of health psychology*, *18*(8), 1069-1084.

Sørensen, K., Van den Broucke, S., Fullam, J., Doyle, G., Pelikan, J., Slonska, Z., & Brand, H. (2012). Health literacy and public health: a systematic review and integration of definitions and models. *BMC public health, 12*(1), 80.

Sykes, S., Wills, J., & Popple, K. (2017). The role of community development in building critical health literacy*. Community Development Journal,* 1-17.

Vaughan, C. (2014). Participatory research with youth: Idealising safe social spaces or building transformative links in difficult environments?. *Journal of health psychology*, *19*(1), 184-192.

Wang, C., & Burris, M. A. (1994). Empowerment through photo novella: Portraits of participation. *Health Education Quarterly, 21*(2), 171-186.

Wharf Higgins, J., Begoray, D., & MacDonald, M. (2009). A social ecological conceptual framework for understanding adolescent health literacy in the health education classroom. American *Journal of Community Psychology, 44*(3), 350-362.

Williams, S., Sheffield, D., & Knibb, R. C. (2016). A snapshot of the lives of women with polycystic ovary syndrome: A photovoice investigation. *Journal of health psychology*, *21*(6), 1170-1182.

Figure 1 Playing with the scooter and walking the family pet to make exercise fun

Figure 2 Child taking inhaler independently

Figure 3 Using materials provided by schools to encourage health literacy at home