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## Addressing Health Literacy for Improved Outcomes: A Focus on Pregnancy

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## **Addressing Health Literacy for Improved Outcomes: A Focus on Pregnancy**

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### **Abstract**

Health literacy influences how messages are received and understood by patient or population groups. In Europe, incomprehension of health information is common, affecting the ability of many individuals to make informed decisions about their health. In addition, incomprehension of health information may impact the effectiveness of interventions and subsequently, health outcomes. In this article, we illustrate the importance of health literacy in the context of maternity services, a time during which, health interventions affect both maternal and child health. Through this, we suggest that health literacy should be recognised in healthcare settings as a tool to facilitate behaviour change. To support this, we provide practical recommendations for clinicians and researchers on how to address aspects of health literacy in their practice.

### **Introduction**

Health literacy has been recognised as a tool to empower individuals and whole communities to achieve better health and wellbeing. Communication influences how messages are received and understood by the public, patients, and service users. Variance in the type and quality of communication in healthcare impacts patients' knowledge and awareness of health issues. Healthcare professional (HCP) communication may influence the effectiveness of interventions that require behaviour change. Addressing communication as an integral aspect of healthcare is therefore valuable <sup>(1)</sup>. Addressing health literacy is especially important in antenatal care during which health messages can impact both maternal and child health. Maternal behaviours influence their own health and the health of their child throughout pregnancy, infancy, and beyond. The effect of this can be seen across multiple generations, whereby fetal programming and epigenetic changes set children on a health trajectory and influence their lifetime burden of disease <sup>(2)</sup>. In maternity services, HCPs have a unique opportunity to influence population health and reduce global disease through the health messages they provide to women of reproductive age. The aim of this article is to briefly discuss some of the evidence for addressing literacy and health literacy with patients and provide practical tips for enhanced healthcare communication in written and verbal format, in the context of maternity services.

## Health literacy

Health literacy includes the ability to understand health information, to use it in decision making, and to apply knowledge to everyday life. The literacy levels of patients must be considered by HCPs as the efficacy of communication may be limited without a mutual understanding between the HCP and their patient. To achieve this, HCPs must communicate in a clear and concise manner that is at a level which is appropriate to meet the needs of their target audience. European statistics (Table 1) show that incomprehension of healthcare information is common across a variety of health services, affecting almost half of individuals<sup>(3)</sup>. This may impact the ability of some patients to make informed decisions about their health and follow health advice. A 2018 study by Juul et al for example, showed that health literacy was positively associated with compliance rates in patients following dietary recommendations to treat type 2 diabetes<sup>(4)</sup>. One factor influencing an individuals' ability to engage with health information is literacy level. In many countries, literacy difficulties are common, affecting anywhere from one in ten to one in five individuals<sup>(5)</sup>.

**Table 1.** Health Literacy in the European Union.

Health Literacy Statistics
47% of adults find reading about health information challenging
41% of adults cannot weigh up advantages and disadvantages when comparing medical treatments
37% would not know when to seek clarification from a second doctor
35% find it challenging to interpret information on a food label
32% would not know how to seek health information on how to manage their mental health

*Data from Moreira, 2018<sup>(3)</sup>*

## Health literacy in pregnancy

The antenatal period presents an ideal opportunity to support women to adopt a healthier lifestyle through diet, exercise and behavioural changes<sup>(6)</sup>. Pregnancy has been characterised as a 'teachable moment' in a woman's lifecycle, during which women have greater contact with health professionals and may also have increased motivation for behaviour changes that can optimise outcomes for them and their children<sup>(6)</sup>. Increased maternal weight for example, increases the risk of pregnancy complications such as gestational diabetes, pre-eclampsia and preterm birth<sup>(7)</sup>. Diet and physical activity are the cornerstone of weight management during pregnancy; however, these factors depend on the individual to understand and implement the changes required. There have been limited interventions to date that focus specifically on health literacy in pregnancy<sup>(8)</sup>. A recent systematic review of available studies however, found that interventions addressing health literacy in pregnancy improved women's knowledge surrounding their pregnancy, including food selection and were associated with reduced levels of anxiety during the antenatal period<sup>(8)</sup>. A study by Solhi et al 2018 found that a HCP-facilitated, health literacy-based educational intervention, including group educational talks, practical exercises, and counselling, lead to positive behavioural change in relation to nutrition, physical activity, dietary supplements, and prenatal care practices<sup>(9)</sup>.

## **Health literacy in in research**

Health literacy and communication may also influence effectiveness in research. A study by Kim et al in 2015 compared the comprehension of participants after looking at a standard and a simplified version of the same consent form. The participants that received the simplified consent form illustrated greater comprehension of the study document compared to those who received the standard version across all levels of health literacy <sup>(10)</sup>. Accessible and effective communication helps to ensure the participant has a full understanding of the study protocol and instructions; a criterion essential to comply with basic ethical standards in research. Lower health literacy has been shown to be a predictor of incomplete research follow up. It can therefore be reasonably hypothesised that addressing the literacy needs of the population may positively influence the outcomes of research studies and completion rates <sup>(11)</sup>.

## **Implications for practice**

A straightforward way to improve health care communication includes considering the readability of a health document. Readability can be improved by reducing the number of lengthy sentences, keeping paragraphs short and swapping complex words or medical “jargon” for a simpler synonym. Where medical “jargon” is unavoidable, an accompanying explanation in lay terms can be offered <sup>(3)</sup>. Readability tools may support HCPs to assess the accessibility of their resources. The readability formulae are based on the average sentence length of a piece of text and the average number of syllables per word within the same piece of text. The Flesch-Kincaid Reading Ease ranges from 0 to 100 and a score of 70 or below indicates that the readability may not be appropriate for some levels of literacy. The Flesch-Kincaid Reading Grade Level is based on the school system in the United States. A typical target score for health information documents is Grade level of 8 which equivalates to the reading level of a 13-15 year old and this could be altered depending on the unique requirements of the patient group <sup>(12)</sup>.

It is also important to use an appropriate level of communication when explaining medical terms, processes, and treatments verbally. In some studies, verbal communication has been reported as the primary means of obtaining nutrition knowledge during pregnancy <sup>(13)</sup>. Simple improvements such as using plain language; encouraging questions, and checking for comprehension of the intended message may help <sup>(14)</sup>. Public Patient Involvement (PPI) is a process in research which can be defined as “research being carried out ‘with’ or ‘by’ member of the public rather than ‘to’, ‘about’ or ‘for’ them” <sup>(15)</sup>. Through PPI, health communication approaches can be tested and adapted in partnership with the target audience. The co-creation of verbal or written content between the HCP and a lay person from the target population, in this case pregnant women or women who have previously been pregnant, can help develop strong health communications which project the intended message from the HCP aiding positive health outcomes.

## **Conclusion**

Pregnancy is a critical timepoint for population health and behaviours in the antenatal period can impact later maternal outcomes in addition to the health of two or more future generations.

Approaching clinical research and practice with literacy in mind may improve success in interventions. Determining baseline literacy levels and taking basic steps such as reviewing reading level of written resources may improve the experience of women receiving antenatal care or taking part in pregnancy research studies. Health literacy should be recognised in the healthcare setting as a tool to help form a positive social interaction by empowering an individual to strive for a better health and wellbeing.

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