The manners of obtaining information on pregnancy and motherhood by women

Magdalena Lemska¹ (ABCDEF), Bogumiła Kiełbratowska² (AF), Urszula Sioma-Markowska³ (EF), Anna Nowak¹ (ABCD)

- ¹ Department of Public Health and Social Medicine, Medical University of Gdansk, Poland
- ² Department of Obstetrics, Medical University of Gdansk, Poland
- ³ Department of Nursing in Gynecology and Obstetrics, School of Female Health, Faculty of Health Sciences, Medical University of Silesia in Katowice, Poland

AUTHORS' CONTRIBUTION: (A) Study Design \cdot (B) Data Collection \cdot (C) Statistical Analysis \cdot (D) Data Interpretation \cdot (E) Manuscript Preparation \cdot (F) Literature Search \cdot (G) Funds Collection

Introduction. In the age of information technology, it is hard to filter the plethora of data that surround us. That is why women frequently reach for various, not always reliable sources when seeking information.

Aim. To determine sources of information on pregnancy and motherhood used by pregnant women and young mothers. Material and methods. The study involved 120 women who gave birth to at least one child in 2016–2018. The study was conducted with a self-constructed questionnaire. An online survey was carried out in July and August 2018.

Results. The Internet is the most common source of information for women (89.96%). Medical professionals 64.14%; antenatal classes 39.98%; family 65.81%; friends 55.81%; TV 9.16%; books and press 59.98%; leaflets 16.66%.

Conclusions. Despite the fact that the Internet is more frequently chosen to seek information, medical professionals are considered the most reliable source of knowledge. Time devoted to patients is categorically too short relative to the needs. This makes pregnant women and young mothers frequently turn to Internet sources.

Key words: pregnancy; motherhood; sources of knowledge; pregnant women

Address for correspondence: Bogumiła Kiełbratowska Department of Obstetrics, Medical University of Gdansk Kliniczna 1A, 80-402 Gdansk, Poland Tel. +0048 58 349 34 45; e-mail: kielbrat@wp.pl

Word count: 1063 Tables: 1 Figures: 6 References: 11

Received: 31.01.2019 Accepted: 04.08.2019 Published: 30.09.2019

INTRODUCTION

At present, pregnancy and motherhood are more and more frequently a planned and often expected period in a woman's life. When preparing for the role of the mother, pregnant women search for information about pregnancy and motherhood. Various sources underline the role of ante-natal education and shaping of appropriate pro-health attitudes [1]. The anonymity of the Internet allows greater freedom in searching for a solution to one's health problems [2], but the availability and freedom do publish information may be misleading [3]. For English websites, there are search mechanisms based on special protocols that mark verified content with a special code, e.g. WRAPIN made by Health On The Net Foundation [3].

There are no tools of this type in Poland, and patients may be aided by portals of medical publishing houses or search engines of PubMed or Google Scholar. Providing appropriate access to medical information should be a responsibility of public administration authorities and scientific associations.

The level of education of Polish women has changed over the years, with more of them reaching higher education levels or Bachelor degrees [4].

AIM

It was attempted to determine the manner in which contemporary women gain information about pregnancy and motherhood. Do women obtain more information about pregnancy and motherhood from doctors, midwives and medical sources or from the mass media? Do sociodemographic factors affect the manner of searching for information?

SUMMARY

MATERIAL AND METHOD

We performed an online survey using a sociological questionnaire. All surveys were filled in via a Google form available at: https://goo.gl/ forms/fsagxyjAqt3bbPzi2. The study included 120 women. It was carried out in July and August 2018. The main investigation was preceded by a pilot study performed in July 2018. The obtained data were analyzed statistically in Microsoft Excel and using graph options of Microsoft Word.

RESULTS

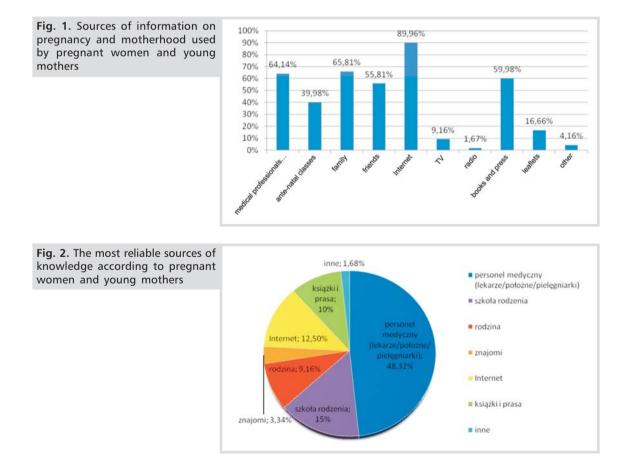
Characteristics of the respondents

The most numerous group of respondents were women aged 25–29 years (44.25%). The second largest group was comprised of women aged 30– 34 years (34.16%). Women aged 20–24 years accounted for 17.42% of the respondents, and women over 35 years of age constituted 3.33%. Nearly 50% of the respondents resided in a city of over 100 thousand inhabitants, and 34.34% lived in towns of up to 100 thousand inhabitants. The remaining women lived in rural areas. A considerable majority of the respondents (65.84%) had higher education, followed by secondary education (28.32%). Approximately 46% of the respondents stayed on a maternity leave during the study. Working women accounted for 31.67% of the group. More than a half of the respondents (nearly 61%) had 1 child, 27.5% had 2 children and 10.84% had three children. One woman had 4 children.

Sources of knowledge

The Internet was the most common source of information for the surveyed women (89.96% of responses). For the remaining responses, the percentages were as follows: medical professionals 64.14%; ante-natal classes 39.98%; family 65.81%; friends 55.81%; TV 9.16%; books and press 59.98%; leaflets 16.66%. Other sources of information were used by 4.16% of the respondents (Fig. 1).

According to the surveyed women, the most reliable sources of knowledge were: medical professionals 48.32%, ante-natal classes 15%, Internet 12.5% and books and press 10%. Family was an important source of knowledge for 9.16% of the respondents. Two women



(1.68%) indicated scientific articles and knowledge from their own studies as the most reliable (Fig. 2).

As for medical professionals, the respondents most frequently indicated a gynecologist/obstetrician as a source of information (54.76%). Ante-natal classes were indicated by 23.81% and a midwife by 16.67% of the women.

The subjects of the most frequently needed information are presented in Figure 3.

The majority of the respondents (70.18%) expressed the opinion that medical professionals provided all the essential information, 14.44% preferred gaining knowledge from other sources, and 7.96% believed that medical professionals had no time to provide all information. Seven women (6.73%) indicated other reasons for a more difficult contact with medical professionals (Fig. 4).

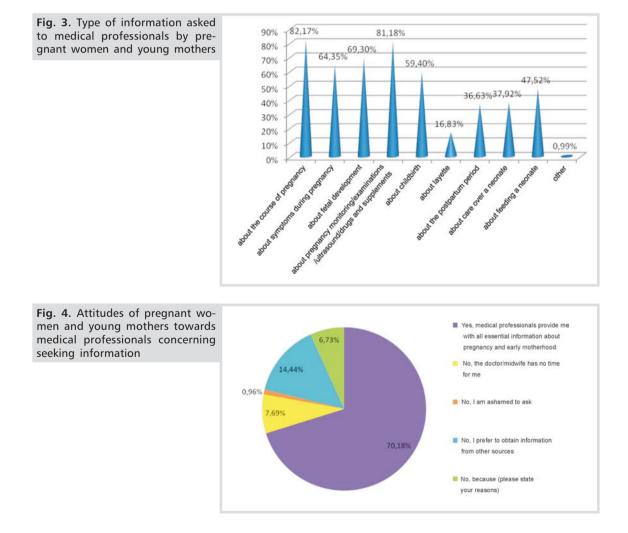
As for obtaining information from the Internet, the respondents usually visited evidencebased websites (e.g. mamaginekolog.pl, mataja.pl) – 94.45% of the women. The fewest respondents visited websites of manufacturers of accessories and clothes for neonates (15.59%). The remaining responses: 33.93% Internet forums and 65.11% social media, i.e. Facebook, Instagram etc. (Fig. 5).

Based on calculations made with the chisquared test (Tab. 1), it was concluded that despite the fact that mothers more often searched for information on the Internet, they thought medical professionals to be a more reliable source of knowledge.

Figure 6 verifies the hypothesis that medical professionals were a more reliable source of knowledge for the respondents than the Internet.

DISCUSSION

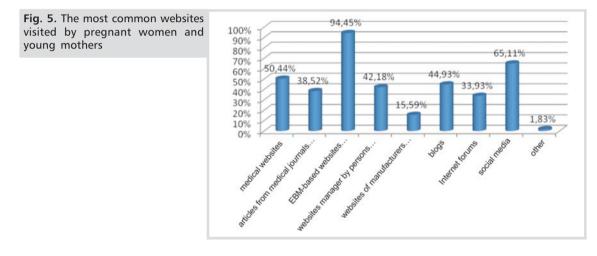
The study confirmed that medical professionals are believed to be a more reliable source of knowledge despite the fact that women more often search for information on the Internet.



Women most frequently use the experience and knowledge of gynecologists/obstetricians, and less often turn to knowledge conveyed during ante-natal classes and by midwives.

This study demonstrated a diversity of sources depending on the range of searched information. As for the issues pertaining to pregnancy, medical professionals were the preferred source of information. However, as for post-partum issues (layette, care for a neonate, breastfeeding, puerperium), the Internet was chosen more often. A frequently visited website was mamaginekolog.pl by Nicole Sochacki-Wójcicka, a doctor in the course of the specialization in gynecology and obstetrics. It was listed most frequently as a website visited by the respondents. Apart from sole knowledge conveyed by a doctor, the website also features articles written by a pediatrician, dietician, cardiologist and dentist. A holistic approach to readers has resulted in great popularity of this blog and its author in social media. The modern manner of conveying information reaches mostly young women [5-11].

The study revealed that contemporary pregnant women and young mothers more and more often use the Internet resources in a controlled way and visit verified websites. Medical professionals are still considered to be the most reliable sources of knowledge but, because of limited access and a subjective opinion concerning a little amount of time devoted to patients, they are slowly being replaced by a new medium, i.e. the Internet.



Tab. 1. The chi-squared test for the hypothesis that "despite seeking for information on the Internet more often, mothers do believe medical professionals to be a more reliable source of knowledge"

•	Reliability of the source of information: responses	Observed value fi	Expected value <i>npi</i>	Difference	Squared difference
	Med. prof. Internet	58 15	36,5 36,5	21,5 -21,5	462,25 462,25
	Result of chi-squared test $\Sigma = 24.164$ (Limit value for degree of freedom -1 is 3.841)				

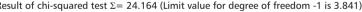
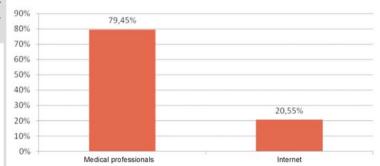


Fig. 6. Percentage distribution of the responses concerning the reliability of obtained information



CONCLUSIONS

- 1. Despite the fact that the Internet is more frequently chosen to seek information, medical professionals are still considered the most reliable source of knowledge.
- REFERENCES

 Miyawaki, R, Shibata A, Ishii K, Oka K: Obtaining information about cancer: prevalence and preferences among Japanese adults. *BMC Public Health* 2015;15(1): 145.

- Wiljer D, Urowitz S, Barbera L (red.): A Qualitative Study of an Internet-Based Support Group for Women with Sexual Distress Due to Gynecologic Cancer. J Cancer Educ 2011;26(3): 451-458.
- Gajda M, Kowalska M. Internet w badaniach interwencyjnych ukierunkowanych na profilaktykę chorób nowotworowych. *Hygeia Public Health* 2016;51(2):115-123.
- Główny Urząd Statystyczny: Raport Polska w liczbach 2017. Warszawa 2017.
- 5. **Dooley B., Baran S.** (red.): The Politics of Information in Early Modern Europe. Routledge, London 2001.
- Doroszewska A., Dmoch-Gajzlerska E. Internet jako źródło informacji o ciąży, porodzie, połogu i pielęgnacji dziecka – analiza wyników badań. Zdrowie Publiczne. 2011;121,2:129-134.

- 2. Time devoted to patients is categorically too short relative to the needs. This makes pregnant women and young mothers frequently turn to Internet resources.
- Gałuszka M. Nowe zjawiska w relacji lekarz-pacjent w kontekście rozwoju Internetu. Przegląd Socjologiczny. 2012;2:119?54.
- 8. Kopacikowa M.. Smoking during gravidity form the perspective of women. *Przegląd Medyczny Uniwersytetu Rzeszowskiego i Narodowego Instytutu Leków w Warszawie*. 2014;12,3:238-242..
- Kowalska ME, Kalinowski P, Bojakowska U. Komunikacja internetowa jako aktywne medium przekazu wiedzy o zdrowiu – szanse, zagrożenia i ograniczenia. *Pielęgniar*stwo Polskie. 2013;50,4:300–304.
- Mianowna V, Dobrowolska B,, Anna Bednarek A i wsp. Wybrane zachowania zdrowotne kobiet w kontekście doświadczenia macierzyństwa. *Pielęgniarstwo XXI wieku*. 2010;32-33,3-4:87-92.
- Knol-Michałowska K, Goszczyńska E, Pietrykowska A. Fora internetowe jako źródło wsparcia społecznego dla kobiet ciężarnych uzależnionych od nikotyny. *Studia Edukacyjne*. 2012;23:141-162.