Patient Targeted Googling by nurses and midwives in Poland

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Abstract: Introduction: Patient Targeted Googling (PTG) is not a new phenomenon, but in Poland — according to the information available to the authors — there has been no research in this area among nurses and midwives. The above-mentioned activity is associated with many doubts and concerns of legal and ethical issues, and therefore there is a need to explore it.

Objective: The aim of this study was to assess the prevalence of PTG among nurses and midwives in Poland.

Material and Methods: The study conducted among 300 working nurses and midwives used a diagnostic survey based on the author’s survey questionnaire. Statistical analysis was performed using PQStat version: 1.8.4.142. Mann–Whitney U tests, chi^2 and Fisher’s correlations were used. The significance level was adopted at p <0.05 and highly significant at p <0.01.

Results: The respondents’ reasons for patient targeted googling were mainly lack of other sources of information, controlling adherence to recommendations, ascertaining the patient’s mental disorders, behavior, substance abuse status and physical appearance. PTG without informing the patient was considered unethical and likely to violate the principle of informed consent and privacy. Respondents expressed the need for PTG training.

Conclusions: The study presents the prevalence of PTG phenomenon among Polish nurses and midwives along with the different determinants of this activity.

Keywords: Internet, Patient Targeted Googling, nurses, midwives.

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**Introduction**

The Internet has changed the way people communicate and understand privacy [1–3], the boundaries of which are increasingly blurred and the sense of anonymity apparent [4–7].

There is no doubt as to the important role of the Internet in modern health care, including with respect to the search for patient information [1, 3, 8]. Searching for such information is referred to as patient targeted googling (PTG) [9–11]. The assumption that a patient’s posting of data on the Internet is tantamount to his awareness of its availability to users can lead to the misconception that googling information about him does not require his consent [9, 12, 13].

Due to the ease of obtaining data from the Internet, the conduct of PTG may lack due consideration [9], and therefore the issue of PTG should become a subject in the education of medical personnel especially through the prism of legal and ethical considerations [14, 15]. Overlooking the patient’s good interest in undertaking PTG, and being guided by curiosity or self-interest [7, 11, 15] raises questions on respect for privacy, informed consent, and the quality of therapeutic relationships and communication [4, 6, 9, 10, 12–16]. Other risks relate to the reliability of obtained data and its relevance to the therapeutic process [1], due to the patient’s intentions when posting it online [2, 15, 17], uncertainty about the patient’s identity [7, 10] and misinterpretation of the data [2, 6, 10]. However, the benefits include gaining a deeper understanding of the patient, verification of the patient’s truthfulness, integration of the information into the therapeutic process [1, 10, 14], presenting the patient’s life in a different light [8] and the implementation of appropriate interventions [15].

The authors are not aware of other studies addressing the prevalence and determinants of PTG among nurses and midwives in Poland. The results described constitute an excerpt from a study on obtaining private patient information from publicly available Internet resources (patient targeted googling) conducted among nurses and midwives and undergraduate nursing and midwifery students.

The aim of the study was to assess the prevalence of obtaining private information about patients from the Internet among active nurses and midwives.

**Material and Methods**

The study was conducted among 300 currently working nurses and midwives using a diagnostic survey method with the author’s survey questionnaire posted on the Google platform, which provided sociodemographic data as well as data on obtaining private information about patients from publicly available Internet resources. The analysis used the statistical package PQStat version: 1.8.4.142, and the Mann–Whitney U test, chi^2 correlation test and Fisher’s exact test. Test probabilities of p <0.05 and p <0.01 were
considered significant. The study was conducted during the period October 12, 2021 to July 26, 2022. Approval was obtained from the Bioethics Committee of the Jagiellonian University (No. 10.72.61.20.174.2021, dated September 29, 2021).

**Results**

The study covered 300 nurses and midwives (286 women, 14 men) with an average age of 36.59 years and work experience of 13.5 years.

The main places of employment were medical treatment wards — 57% (N = 171) and surgical wards — 22.67% (N = 68). Other workplaces included primary health care — 4.67% (N = 14), outpatient specialty care — 3.33% (N = 10), hospital emergency departments and EDs — 5.33% (n = 7), long-term care — Care and Curative Institution, Day Care Center — 3% (N = 9), community care — 1.33% (N = 4) and hospice care — 0.33% (N = 1), and other — 5.33% (N = 16). Statistical analysis confirmed a highly significant association (p <0.01) between the main place of employment and the frequency of conducting patient targeted googling.

The respondents’ education was at varying levels. A master’s degree in nursing was confirmed by 38.13% (N = 114), and a bachelor’s degree in nursing by 29.1% (N = 87). A master’s degree and specialization in nursing was confirmed by 16.05% (N = 48), and a bachelor’s degree and specialization by 6.35% (N = 19). The title of specialist nurse in the field was held by 2.68% (N = 8), and certified nurse by 2.34% (N = 7), while a bachelor’s degree in midwifery was obtained by 5.35% (N = 16).

Daily online activity was confirmed by 76.33% (N = 229) of the respondents, and several times a week by 18% (N = 54). Facebook accounts had 88.67% (N = 266), and Instagram accounts had 49.0% (N = 147). 73.0% (N = 219) of the respondents admitted to using their social media accounts daily, while 20.0% (N = 60) admitted to using them several times a week.

More than half of the respondents 60.0% (N = 80) considered searching for patient information through search engines and browsing social media profiles. They indicated that they were mainly prompted to consider searching by curiosity — 76.67% (N = 138), a willingness to get to know the patient better and understand their behavior 52.78% (N = 95) each, and a willingness to help — 46.67% (N = 84). In addition, the reasons for considering patient targeted googling were most often the patient’s unusual/weird behavior — 64.44% (N = 116), crossing the boundaries when interacting with medical personnel 48.33% (N = 87), showing aggressive behavior 36.37% (N = 66) and hostility to the environment 32.22% (N = 58). In the patient’s physical appearance, unusual hairstyle or makeup was mentioned as a reason for the above considerations — 45.00% (N = 81), eccentric clothing 41.67% (N = 75) and tattoos 38.89% (N = 70). The remaining indications were related to clothing (incomplete/dirty/inappropriate for the season, time of day).
The respondents most often considered searching for information about patients cared for in medical treatment wards — 66.67% (N = 120), surgical wards — 18.33% (N = 33), community care and primary health care — 3.89% each (N = 7). Fewer indications were in the emergency department — 2.78% (N = 5), maternity/childbirth and psychiatric wards at 1.11% each (N = 2), long-term care at 1.67% (N = 3) and hospice care at 0.56% (N = 1).

Browsing online resources — ever — to search for patient information (PTG) was conducted by 60.67% (N = 182) of the respondents. The most common choices included the Facebook app — 80.22% (N = 146), web browsers such as Google — 71.43% (N = 130) and Instagram — 17.03% (N = 31). Searches for patient information were conducted several times a year by 54.4% (N = 99), once a year and less often by 30.22% (N = 55), several times a month by 10.99% (N = 20), daily by 2.75% (N = 5), and several times a week by 1.65% (N = 3). Curiosity was mainly mentioned as the reason — 73.63% (N = 134), willingness to understand the patient’s behavior 52.75% (N = 96) and getting to know the patient better 48.35% (N = 88) (Table 1).

**Table 1. Reasons for the respondents’ patient targeted googling.**

<table>
<thead>
<tr>
<th>Reasons for patient targeted googling</th>
<th>Indicated responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>curiosity</td>
<td>134</td>
</tr>
<tr>
<td>willingness to get to know the patient better</td>
<td>88</td>
</tr>
<tr>
<td>willingness to help the patient</td>
<td>81</td>
</tr>
<tr>
<td>need to obtain data about the patient that cannot be obtained from other sources</td>
<td>62</td>
</tr>
<tr>
<td>understand the patient’s behavior</td>
<td>96</td>
</tr>
<tr>
<td>verify the patient’s truthfulness</td>
<td>65</td>
</tr>
<tr>
<td>confirm the assumption that the patient suffers from a mental disorder</td>
<td>63</td>
</tr>
<tr>
<td>verify the patient’s adherence to medical/nursing recommendations</td>
<td>35</td>
</tr>
<tr>
<td>verify the patient’s functioning after treatment/hospitalization</td>
<td>52</td>
</tr>
<tr>
<td>other</td>
<td>3</td>
</tr>
</tbody>
</table>

Information was most often sought on patients with unusual/weird behavior — 67.58% (N = 123), inappropriate to the situation, and when the patient crossed the boundaries when interacting with medical personnel 50.0% each (N = 91) (Table 2).

There was a significant relationship between the reason for patients targeted googling due to their behavior — a patient under the influence of alcohol — and the workplace (p <0.05), and a highly significant relationship between the patient’s
condition resulting from drugs and the workplace (p <0.01). Information about patients under the influence of alcohol was searched for more often in ED wards, and information about patients who took drugs was searched for significantly more often in medical treatment wards.

Also, the patient’s physical appearance was the reason for searching information on the Internet, especially unusual hairstyle, makeup 42.86% (N = 78), eccentric clothing 40.11% (N = 73) and tattoos 38.46% (N = 70).

The most frequently searched for patient information was medical treatment ward 66.48% (N = 121), surgical ward 17.58% (N = 32) and primary health care 4.4% (N = 8). Community care was indicated by 3.85% (N = 7), the emergency department by 2.75% (N = 5), while long-term care was indicated by 3.3% (N = 6) and the maternity ward/birthing ward by 1.1% (N = 1). Outpatient specialty care and hospice care were even less frequently indicated.

Information obtained from the Internet considered relevant to the treatment process was provided by 47.25% (N = 86) to selected members of the treatment team, while 29.12% (N = 59) stated that they did not provide such information. All the information available to them from such a source was directed to selected members of the treatment team by 9.89% (N = 18), while 7.69% (N = 17) admitted to providing only information regarded as important to all members of the treatment team. All the information was communicated to all members of the treatment team by 6.04% (N = 11).

According to 55.33% (N = 166) of the respondents, other health care professionals searched the Internet for information about patients. A negative response was given by 17.33% (N = 52), and “don’t know” by 30.68% (N = 139).

Table 2. Patient behavior as a reason for the respondents’ patient targeted googling.

<table>
<thead>
<tr>
<th>Patient’s behavior as a reason for seeking information</th>
<th>Indicated responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>unusual/weird behavior</td>
<td>123</td>
</tr>
<tr>
<td>patient was under the influence of alcohol</td>
<td>42</td>
</tr>
<tr>
<td>patient was under the influence of drugs</td>
<td>46</td>
</tr>
<tr>
<td>excessive cheerfulness</td>
<td>42</td>
</tr>
<tr>
<td>behaviour inadequate to the situation</td>
<td>91</td>
</tr>
<tr>
<td>violent behaviour</td>
<td>68</td>
</tr>
<tr>
<td>hostility towards the environment</td>
<td>65</td>
</tr>
<tr>
<td>crossing borders when interacting with medical personnel</td>
<td>91</td>
</tr>
<tr>
<td>other</td>
<td>26</td>
</tr>
</tbody>
</table>
During their professional and postgraduate training, as many as 80.675 (N = 242) did not face the issue of maintaining proper relationships with patients in the Internet space. In the opinion of the vast majority — 76.66% (N = 230) — training in this area is necessary.

To the question of whether legislation in Poland allows patient targeted googling — “I don’t know” was given by 66.67% (N = 200), “yes, but to a limited extent” by 13.33% (N = 40), while “yes” was given by 9.33% (N = 28), and “yes, but in exceptional cases” by 6.0% (N = 18). The answer “no” was given by 4.67% (N = 14). More than half of the respondents — 65% (N = 195) did not know whether ethical norms in Poland allow such actions. They were considered incompatible by 9.67% (N = 29), while 6.67% (N = 20) answered “yes,” followed by 13.0% (N = 39) “yes, but to a limited extent” and “yes, but in exceptional cases” — 5.67% (N = 17). Patient targeted googling was ethical for 24.34% (N = 73) of the respondents, with 41% (N = 123) having the opposite opinion. 34.67% (N = 104) of the respondents had no opinion on this issue.

The majority of the respondents, 78.67% (N = 236), agreed with the statement that setting up a public profile on social media deprives privacy and there are no restrictions on browsing. As appropriate, 31.66% (N = 95) rated the search for patient information in Internet resources. The opposite opinion was held by 39.34% (N = 118). 29.0% (N = 87) had no opinion on this issue. The proper reason for obtaining information about the patient on the Internet was, in the opinion of 44.00% (N = 132), to verify that the patient does not take actions that endanger himself and the environment, to complete the interview — 41.33% (N = 124) and to verify the patient’s truthfulness — 38.0% (N = 114).

According to 47.0% (N = 141) of the respondents, obtaining information from the Internet enables a better understanding of the patient, and for 46.33% (N = 139) it allowed them to learn about their social environment and obtain information quickly — 43.67% (N = 131). Other possibilities were confirmed by 53.33% (N = 160).

In the opinion of 39.0% (N = 117) of the respondents, the data obtained from the Internet was reliable, more than a third of the respondents — 36.33% (N = 109) had no opinion, and the remaining 24.66% (N = 74) considered the information unreliable. Half of the respondents — 47.33% (N = 142) — had no opinion on whether the patient information obtained from the Internet could affect the subsequent nurse-patient relationship in the therapeutic process. For 19.33% (N = 58) it did not matter, while 16.99% (N = 26) thought it would have a negative impact, and 12.42% (N = 19) thought it would have a positive impact. If the patient finds out that information was sought on the Internet, for 31.33% (N = 94) it meant a negative impact on further relationships in the therapeutic process. A favorable impact was indicated by 5.67% (N = 17) of the respondents, and 16.33% (N = 49) believed that it would not affect further relationships in the therapeutic process. “I have no opinion” was indicated by 46.67% (N = 140).
The respondents were asked whether, in their opinion, patient targeted googling without informing the patient might be a violation of privacy, confidentiality, informed consent, trust, the therapeutic relationship, patient rights or professionalism. More than half of the respondents believed that such an action would be a violation of informed consent 53.33% (N = 160) and privacy 56.0% (N = 168), and 42.67% (N = 128) stated that such a search for information would be a violation of professionalism (Table 3).

Table 3. Violation of patient contact rules according to respondents as a result of patient targeted googling without their consent.

<table>
<thead>
<tr>
<th>PTG as a violation of patient contact rules</th>
<th>Indicated responses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
</tr>
<tr>
<td>privacy</td>
<td>168</td>
</tr>
<tr>
<td>confidentiality</td>
<td>101</td>
</tr>
<tr>
<td>informed consent</td>
<td>160</td>
</tr>
<tr>
<td>trust</td>
<td>103</td>
</tr>
<tr>
<td>therapeutic relationship</td>
<td>99</td>
</tr>
<tr>
<td>patient rights</td>
<td>85</td>
</tr>
<tr>
<td>professionalism</td>
<td>128</td>
</tr>
</tbody>
</table>

Respondents were presented with three descriptions of situations, asking them to evaluate the medical personnel’s conduct.

The first situation described involved an 18-year-old unconscious patient admitted to the ED in severe condition after a drug overdose. The patient has an identification document with him. Your colleague decides to look for the patient’s family members through social networks (e.g. Facebook). He manages to make contact with the patient’s parents, who immediately arrive at the hospital.

The coworker’s conduct was rated as appropriate by 59.86% (N = 179); definitely appropriate by 16.72% (N = 50), rather appropriate by 43.14% (N = 129). A co-worker’s action was described as inappropriate by 18.39% (N = 55) of the respondents. The rest rated such behavior as neither appropriate nor inappropriate — 16.05% (N = 48) or had no opinion — 17, 5.69% (N = 17).

The second situation presented for evaluation involved a 48-year-old patient who was admitted to the internal medicine department with a diagnosis of hypertension and paranoid schizophrenia. The patient liked to spend his time painting drawings in a sketchbook brought by his sister. He told the nurse that the windmill he had just painted would be added to other works already on display. The nurse looked for an exhibition of the patient’s paintings after returning from duty.
More than half of the respondents, 52.84% (N = 158), rated the nurse’s behavior as “neither appropriate nor inappropriate.” The above behavior was rated as appropriate by 76% (N = 92); definitely appropriate by 9.36% (N = 28) and rather appropriate by 21.4% (N = 64). Whereas it was considered inappropriate by 12.04% (N = 18) of the respondents; definitely inappropriate by 1.67% (N = 5) and rather inappropriate by 4.35% (N = 13), and 10.37% (N = 31) had no opinion.

The last case description concerned the care of a patient, convicted of a crime in the past. A team of which you are a member receives information that one of the patients under your care has been convicted of a crime in the past. Your colleague decides to search the Internet for information about this patient. The data obtained indicates that he has been convicted of a violent crime (such as battery with fatal effect).

In the opinion of 56.33% (N = 169) of the respondents, having knowledge of this matter was important, but without any impact on reducing the quality of care, and 19.67% (N = 59) chose the answer “I have a right to know this information for my own safety.”

Discussion

Internet use is a part of daily life for the entire population. It accompanies everyone — regardless of gender, education, marital status, place of residence or profession. Only the operability of Internet users considered in terms of age may be debatable. The study “Internet use in 2022” showed that activity in this space is almost universal in the age group from 35 to 44 and among the economically active [18]. Comparing the results of our own research with the above, it is in line with this general trend. This popularity is mainly due to the possibility of reviewing information indefinitely, as well as the simplicity and convenience of the process [19] — which is particularly convenient for shift-work users. In our own study, the average age of participants was 36.59, but data from the Report of the Supreme Council of Nurses and Midwives [20] showed that the average was higher, and among nurses it was 53.7, and midwives 51.3. The results are so diverse due to the undersized population participating in our own study.

Studies addressing the issue of PTG confirm that the respondents were various medical professionals, but not nurses and midwives. The PTG phenomenon was analyzed in professions such as: psychotherapists [14, 21], emergency medicine physicians and residents [22], psychiatrists [11, 23] and psychiatry residents [11, 24], clinical genetics professionals [5], pediatricians and pediatrics residents [25], mental health specialists [26], psychiatrists and psychologists [27], child psychologists [28], psychologists [29–31], psychiatrists, clinical psychologists and psychotherapists [32]. Given the analyses conducted among different groups of medical professions, the
prevalence of this phenomenon can be compared. In our own study, more than half of the nurses and midwives admitted to seeking information about patients on the Internet. Examples of observations made indicate that the percentage of employees undertaking PTG takes a wide range and varies from 5.1% to 97.8% [5, 10, 14, 21, 22, 24, 25, 27, 28, 33, 34].

Our own research confirmed that the most common search was for information on patients staying in medical treatment and surgical wards. This may be due to the fact that these were the wards where the largest number of survey participants actually worked. A frequently indicated reason for undertaking PTG was willingness to understand patient behavior and to get to know the patient better, which could be interpreted as being guided by the patient’s best interests. However, at this point the question should be raised whether curiosity, which received the most indications, can also be interpreted in this way? The respondents confirmed that the patient’s physical appearance also prompted them to seek information about the patient. According to Kępiński, the perception of another person is often conditioned mainly by clothing, which also includes hairstyle — both of these elements of superficiality emphasize an individual’s social role. However, inferring a patient’s condition based on apparel requires much caution [35]. Perceiving the patient’s physical appearance is also, obviously, the result of observation, which is necessary in contact with the patient, and which allows for nursing diagnosis and further interventions. Such observation is a conscious attention to the patient’s appearance, and this initial observation may even be casual — but consequently leads to purposeful and focused analysis [36]. It remains to hope that the respondents’ strong emphasis on the patient’s physical appearance as a reason for undertaking PTG, was based on higher considerations and did not have a negative meaning and was not a reason for “categorizing” the patient.

Working in the medical profession, i.e. in nursing, requires paying close attention to the potential benefits and negative consequences of activity in the online space in relation to the ethics of a profession and its expediency. It should not be forgotten that the use of Internet resources requires targeting the rights to confidentiality and privacy in the context of health care. It is worth emphasizing that various information about the patients, which they share on the Internet, should not be posted in their medical records or taken up for discussion without their consent [37]. Many Internet users, when posting information about themselves, do not assume and are not aware that it can be used by health care professionals. The results of our own study confirm respondents’ doubts about whether the data obtained in this way is related to the subsequent therapeutic relationship and the treatment process.

The fact that 39.0% of the respondents considered data from the Internet to be reliable is quite puzzling. It is worth noting that people’s identities on the Internet are not always true, and may be constructed solely because of the expectations of those around them or the desire to create a new self-image under different circumstances [38].
Searching for information via the Internet requires being critical of it and adopting appropriate evaluation criteria [39]. It is also necessary to verify the validity of such data and its real usefulness before making important decisions [40].

It may be suggested that in the area of legal aspects, there is some under-information of nurses and midwives with regard to the issue at hand. However, this does not lead to negative conclusions, as the Polish guidelines do not indicate the rights and obligations of health care professionals when it comes to patient targeted googling. Therefore, the answers given during the survey can be regarded more as intuitive.

The respondents’ education was of varying levels, with a predominance of higher education, including specialization. It is noteworthy that the vast majority of respondents, despite having a high level of education, strongly emphasized the need for training related to the aspects addressed in the survey. This may lead to reflection as to whether the training programs are indeed preparing for nursing care on many levels, and whether they are up to date in the face of an ever-evolving modern era. The dynamics of change in nursing indicate the use of PTG in daily practice [7, 9, 13–15]. This is why the PTG phenomenon — due to its multifaceted nature, strong presence among various medical professions, providing numerous legal and ethical concerns, and causing real consequences for the treatment process and maintenance of therapeutic relationships — requires its place in basic and postgraduate education.

Conclusions

1. The phenomenon of patient targeted googling by nurses and midwives is present in Poland and undertaken in various circumstances.
2. Obtained research results encourage deeper analysis in this area, and the multifaceted approach of PTG indicates the necessity of training among active nurses and midwives.

Contribution statement

Analysis and writing the article: P.Z., K.W.

Conflict of interest

None declared.

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