

# The usefulness of Facebook or Website for Information about Aphasia

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## Abstract

Not every website or Facebook page is optimally designed for use by web surfers who are seeking information about aphasia. In this paper we examined the accessibility of both the Facebook page and the website for healthcare professionals who are users or are seeking information regarding this topic. Results of 6-point Likert scale questionnaire following the creation and viewing both sites demonstrated statistically significant findings that healthcare professionals would prefer to use a website rather than using Facebook, as compared to a control group of 85 non healthcare professionals. Approximately 76% and 57% healthcare professionals as well as non-healthcare professionals preferred the website, and 65% and 51% healthcare professionals as well as non-healthcare professionals preferred the Facebook page as a reference source over others. These findings are consistent with literature in the area of usefulness of the internet and social media for web surfers who are seeking information regarding aphasia.

**Keywords:** aphasia, health information, website, healthcare professionals, Facebook page

## Introduction

Aphasia, also known as language impairment, is a decreased ability to express and understand information to a degree that causes problems not easily treated. Some also present with motor difficulties that include dysarthria or apraxia and even swallowing deficits may co-occur. The most common etiology is stroke and aphasia takes many forms varying in degrees of impairment as well as information processing difficulties that relate to all sensory information including reading and writing. People seeking information about aphasia use the internet and social media to find tremendously important useful resources regarding healthcare as well as guidelines for the condition.

In fact, teenagers referred getting health information as the third most important reason for using the internet (31%). More than half (61%) of the participants used the internet at least once to get health information (Fox & Jones, 2008, cited in Lenhart, Purcell, Smith, & Zickuhr, 2010). Another study for Pew Internet Institute demonstrated that 75-80% of the Internet users look for health information online (Fox, 2008).

In another study, 58% of the 801 participants used the internet to obtain health information, and the 84% considered the internet as useful resource for this purpose. Additionally, 53% evaluated the health information provided online as comprehensive, and 17% considered every online information as reliable. Finally, 76% of the participants had looked up a family member's condition online (AlGhamdi & Moussa, 2012). This finding is consistent with the results of an older study, which demonstrated that 54% of the participants sought health information online for acquaintances (Cline & Haynes, 2001).

The internet is a crucial source of information about health issues for a continuously growing number of people. For caregivers, the internet has helped in finding better quality of service, and in finding useful advice and support. More than half of them (58%) reported that they found the most important information online. The participants sought information mainly about medical advice, support groups, hospital websites and information about

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their condition (Madden & Fox, 2006). Online health information can improve self-care and support seeking, and can implement the information provided by physicians, thus resulting in improved decision making about health issues (Gallagher, Tedstone Doherty, Moran, & Kartalova-O'Doherty, 2009).

The literature about the social media's popularity as a health information source for the general population is restricted. A study about YouTube popularity as an online source of health information demonstrated that the medium can remarkably influence people's beliefs for health issues. Reliable postings by professional organizations are available, but since misleading information is posted equally often, interventions to increase people's ease of distinguishing the useful information are warranted (Madathil, Rivera-Rodriguez, Greenstein, & Gramopadhye, 2015).

The internet is also important to healthcare professionals for retrieving information about health issues. More than 93% of the doctors in Nigeria use the internet for presentation in seminars, exams or research, while approximately 88% of them use the internet for patient care. Google and Yahoo were considered as the most frequently used and easily accessible sources of health information (Ajuwon, 2015).

These findings are consistent to the reports of another study, which demonstrated that 90% of the participating doctors use the internet in general, both for educational purposes and to solve an immediate problem. The main reasons reported considered the fact that the internet is easy to use, and that the information obtained was more timely (Hughes, Joshi, Lemonde, & Wareham, 2009).

Social media can provide healthcare professionals with a clear notion about the issues that are important to patients, and can become a medium that allows further engagement with not only patients, but also colleagues (Hart, 2015). Healthcare professionals can also share tacit knowledge via social media. It was demonstrated that social media are used by healthcare professionals to socialize, learn new practices, network and share clinical stories with peers, and all these activities help the aforementioned sharing of knowledge (Panahi, Watson, & Partridge, 2016).

Use of social media was prevalent in younger doctors for professional purposes (Cooper, Gelb, Rim, Hawkins, Rodriguez, & Polonec, 2012). Many healthcare students also state that social media would facilitate learning and retrieving important information in class (Javed & Bhatti, 2015). Facebook and YouTube are very popular among healthcare students, as they are used by the 54% and 55.4% respectively. In the same study, the majority of students (63.8%) preferred to post on Facebook for academic purposes. What moti-

vated the participants was the convenience in information retrieval (Campbell & Craig, 2014).

Although the lines are blurred considering the use of social media in clinical practice, either for information retrieval or for communicating with patients, when cautiously used, the social media can augment the clinician's service providing and the patient-doctor relationship (Spence, Lachlan, Westerman, & Spates, 2013). Other findings support the idea that patient-doctor relationships are facilitated by the social media, and that the latter have impacted society in a generally positive way (Stump, Zilch, Coustasse, 2012).

Previous research concerning online information seeking about aphasia demonstrated that it is more likely to often visit a website about aphasia if the person knows a patient with the condition (Tsana & Proios, 2004). An adaptation of this website was used for this study in addition to creating a new Facebook page for web users to access regarding information on aphasia. First, it was hypothesized that reports after viewing both the website and the Facebook page will be mostly positive for both healthcare professionals and the non-healthcare control group. A second hypothesis as far as the control group was concerned, is that knowing a person with aphasia will result in even more positive significance for the participants' evaluation of both sites.

## Methods

170 participants aged 18-70 (mean 36 years, SD: 13.6) were recruited from the regions of Athens and Thessaloniki. Among the participants, 85 were healthcare professionals. Of the total sample, 65% were women. The control group consisted of non-healthcare professionals ranging in age from 18 to 70 (mean 39 years, SD:14.6). The exclusion criteria included working in a healthcare profession. The group included private sector employees, lawyers, engineers, or students of alike fields. The healthcare professionals' group ranged in age from 19 to 62, (mean 32.7 years, SD:11.8). The group consisted of neurologists, pathologists, nurses, speech and language therapists, psychologists and special educators, or students and graduate students of the aforementioned fields.

An updated version of the Thessaloniki Aphasia Team's website (originally created by Tsana, 2004) was created, as well as a corresponding Facebook page. Both sites were presented to the participants for their viewing. They viewed the sites at their own pace and no time constraints were made. Participants visited the website and the Facebook page on their personal computer. Then the questionnaire was completed either on site or via email. None of the participants received any

financial remuneration for participating. The participants gave their written informed consent and the experimenters adhered to international ethical standards relating to participation in research. The Ethics Committee of "Anagennisi" Rehabilitation Centre approved the present study (approval number: 20160420-1ΕΔ). Other local hospitals in Thessaloniki area including Papanikolaou University Hospital and Gennimatas General Hospital were contacted, and healthcare providers were interviewed by the examiner using the questionnaire.

A 19-item questionnaire was created to measure participants' opinions about both sites. A six-point Likert scale was used, as seen in Appendix I (0 for "not at all", 1 for "scarcely", 2 for "a little", 3 for "moderately", 4 for "much", and 5 for "very much"). Items 1 to 9 assessed participants' use of the internet and social media, in general and their relationship with aphasia. Items 10 to 19 assessed participants' evaluation of the two sites. This second part of the questionnaire contains items concerning the usefulness of the sites' information, the ease of use, frequency of future visits to the page, preference of the sites over other sources of information, and the sites' recommendation to others. Apart from the questionnaire items, there were questions about gender, age, education level and profession of the participants.

## Results

Data were analysed by using the IBM SPSS Statistics (version 22). At first, we tested the reliability of the questionnaire. Cronbach's alpha was significantly high (0.87), which suggests that the reliability of the questionnaire is considerable. As seen in Figure 1 (page 10), 83.5% of the healthcare professionals and 71.7% of the control group of non healthcare professionals responded "much" or "very much" on how useful the information was, while 70.6% of the healthcare professionals and 68.3% of the control group responded so for the information on the Facebook page. On how often they would visit the website in the future, healthcare professionals reported that they would visit the website "much" or "very much" in a higher frequency compared to the control group (32.9% and 18.8% respectively). More healthcare professionals (32.9%) than participants of the control group (22.4%) reported the same for the Facebook page. Finally, 76.4% of the healthcare professionals and 57.7% of the control group reported that they would prefer the website from other sources of information "much" or "very much", while 65.9% of the former and 51.8% of the latter reported so for the Facebook page.

Healthcare professionals (0%) and only 2.4% of the control group did not consider the information on the

website useful. Also, only 1.2% of both groups reported the information on the Facebook page to not be useful. Healthcare professionals reported less frequently (9.4%) than the control group (15.3%) that they would never visit the website or the Facebook page in the future (14.3% and 22.4% respectively). In addition, only 1.2% of the healthcare professionals and 3.5% of the control group did not prefer the website as a source of information over other sources, and only 3.6% of the healthcare professionals will not prefer the Facebook page. Interestingly, 12.9% of the control group reported that they will not prefer the Facebook page, a percentage much higher than the one reported by healthcare professionals, and the one reported by the control group about the website.

It is also important to note the most frequent reports for the two sites, both for the healthcare professionals and the control group. A qualitative analysis of the results demonstrated that the information on the website was most frequently reported as "much" useful by the healthcare professionals (55.3%), and the control group (54.1%). The most frequent report on the perceived usefulness of the information posted on the Facebook page was also "much" for both healthcare professionals (48.2%) and the control group (56.5%).

As far as future visits on the website are concerned, the most frequent report was "moderately" for healthcare professionals (41.2%) and "a little" for the control group (35.3%). For the Facebook page, the most frequent report made by healthcare professionals was "moderately" (32.9%), and for the control group was "a little" (29.4%).

Finally, when asked about whether they will prefer the website over other sources, healthcare professionals reported "much" (43.5%) most frequently, and so did the control group (42.4%). Both groups reported "much" for the Facebook page most frequently (40% of the healthcare professionals and 31.8% of the control group).

As far as the second hypothesis is concerned, correlations between item 8 (which is about how many aphasia or stroke patients the participant knows) and the items in the questionnaire concerning the perceived usefulness of the website (item 10) and the Facebook page (item 11) led to no statistically significant findings ( $r=0.130$ ,  $p=0.237$ , and  $r=0.187$ ,  $p=0.086$ ). However, correlations between item 8 and the items concerning the reported future visits to the website (item 14) and the Facebook page (item 15) were statistically significant ( $r=0.508$ ,  $p<0.01$ , and  $r=0.351$ ,  $p<0.01$ ). We also found statistically significant correlations between item 8 and the items concerning whether the participant would prefer the website (item 16) or the Facebook page (item 17) over other sources of information ( $r=0.279$ ,

$p < 0.01$ , and  $r = 0.29$ ,  $p < 0.01$ ), thus confirming partially our second hypothesis.

## Discussion

The results are indicating that the first hypothesis is confirmed, since the majority of both groups evaluated the two sites positively. However, the percentages of the future visits were remarkably lower than the percentages of perceived usefulness of information and preference over other sources. This finding may indicate that although the two sites made a positive impression to the participants, the latter may not be needing the information provided by the sites in the near future. The higher negative percentages considering the future visits by both groups might be a finding that supports this assumption. Healthcare professionals' percentages indicate that this group valued more than the control group the content of the two sites. It is likely that academic and clinical reasons might have influenced their reports. Finally, the website was positively evaluated by both groups more frequently than the Facebook page, and negative reports were lower for the former than for the latter.

The second hypothesis was confirmed. While knowing an aphasia patient was not significantly correlated to the perceived usefulness of information provided by the two sites, it was correlated to reported frequency of future visits and preference over other sources of information. According to these findings, the more a participant is acquainted with an aphasia patient, the more likely it is that he/she will visit the two sites and the more likely it is that he/she will prefer the two sites over other sources of information. The lack of correlation between knowing an aphasia patient and the perceived usefulness of information provided by both sites implies that the participants considered the information useful, despite not knowing any aphasia patients.

Additional sample could detect further differences in participants' reports, but there is a lack of available measures for evaluating how information that is provided in social media could potentially help actual individuals on a daily basis. In any case, the successful dissemination of information requires further study, with Facebook as a knowledge source to provide reliable and efficient explanations and services.

This confirms that pronounced use of social media increasingly serves the purpose of health information seeking for both healthcare professionals and consumers. The Conversation ([www.theconversation.edu.au](http://www.theconversation.edu.au)) is one of the social media recommended for retrieving reliable and simplified scientific information. The Conversation allows debate and user engagement, pro-

vides feedback and is open and accessible (Ferguson, 2013). Twitter is also regularly used by healthcare professionals for promoting ideas or scientific findings (Lo, Wu, Morra, Lee, & Reeves, 2012).

The majority of healthcare professionals use the social media for professional purposes. The perceived advantages of blogs and online networking sites were transparency, the two-way form of interaction, the ability to reach specific and large groups of people. The main purposes for using the social media were to raise awareness, share information, and network with other healthcare professionals (Dooley, Jones, & Iverson, 2014). Another study found that 95% of the participants maintained a Facebook account for similar reasons (Anderson & Guyton, 2013).

## Conclusion

In this paper, we examined how Thessaloniki Aphasia Team's website and Facebook page were perceived both by a group of healthcare professionals that treat aphasia and by a group of participants originating from the general population. Further research and qualitative methods could identify more refined differences between the two groups, concerning their attitudes towards health in general, and the purposes of seeking health information. However, it is crucial to take into consideration that there are very limited sources of online information about aphasia in Greece. Thessaloniki Aphasia Team's website and Facebook page are part of an important effort to provide timely and accurate information to both professionals that treat aphasia and the general population.

The expectations and feedback for both website and the Facebook page should be clearly examined and regular implementation of changes to the sites are warranted. For example, practical links to new developing websites or therapy applications will be incorporated ever so often. Qualitative research could also help identify disparities between the way healthcare professionals and the general population are seeking health information. Attitudes and strategies in evaluating the credibility of the health information provided by the internet and social media should also be examined.

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### **Notes**

All data related to our manuscript is included in a SPSS file which can be obtained by sending an email request to the corresponding author.

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**Appendix**

Evaluation Questionnaire  
 For Thessaloniki Aphasia Team's Website and Facebook Page

Gender:  
 Age:  
 Occupation:  
 Education level:

Answer every question by marking the number you consider as most appropriate: 0=not at all, 1=scarcely, 2=a little, 3=moderately, 4=much, 5=very much

Internet use and participant's knowledge about aphasia

- 1) How often do you use the internet?  
 0 1 2 3 4 5
- 2) How often do you use the social media?  
 0 1 2 3 4 5
- 3) How useful is the internet in searching for health information?  
 0 1 2 3 4 5
- 4) How useful are the social media in searching for health information?  
 0 1 2 3 4 5
- 5) How often do you use the internet to search for health information?  
 0 1 2 3 4 5
- 6) How often do you use the social media to search for health information?  
 0 1 2 3 4 5
- 7) Do you know what aphasia is?  
 0 1 2 3 4 5
- 8) Do you know any aphasia or stroke patients?  
 0 1 2 3 4 5
- 9) Have you ever looked up information for them?  
 0 1 2 3 4 5

Evaluation of both sites

- 10) How useful is the website's information?  
 0 1 2 3 4 5
- 11) How useful is the Facebook page's information?  
 0 1 2 3 4 5
- 12) Can you navigate the website easily?  
 0 1 2 3 4 5
- 13) Can you navigate the Facebook page easily?  
 0 1 2 3 4 5
- 14) How often will you be visiting the website?  
 0 1 2 3 4 5
- 15) How often will you be visiting the Facebook page?  
 0 1 2 3 4 5
- 16) Will you prefer the website over other sources of information (e.g. television, radio)?  
 0 1 2 3 4 5
- 17) Will you prefer the Facebook page over other sources of information (e.g. television, radio)?  
 0 1 2 3 4 5
- 18) Would you recommend the website to others?  
 0 1 2 3 4 5
- 19) Would you recommend the Facebook page to others?  
 0 1 2 3 4 5

### **Informed Consent**

Research regarding the internet and social media as a source of information and support in aphasia

I hereby declare that I am fully informed about the research's objectives (which concern an evaluation of the Thessaloniki Aphasia Team's website and corresponding Facebook page), and I am willingly participating in the study. The evaluation will be conducted by filling out a 19-item questionnaire, after having visited the website and the Facebook page. My participation will last approximately 20-30 minutes. For any questions or concerns that might come up, I can contact the researchers via email.

I am aware that I will be requested to evaluate the Thessaloniki Aphasia Team's website and a corresponding Facebook page. I may terminate my participation in the research at any time, with no consequences. Confidentiality will be maintained as far as my personal data are concerned. An abstract of the study's findings will also be given to me, if I request it.

[Sign here]