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CULTIVATING EFFECTIVE COMMUNICATION IN HEALTHCARE: THE CASE OF Q&A WEBSITES

1. Introduction

The present study shows how a communicative turn in our understanding of healthcare is underway because of emerging mass-communication technologies, such as that offered by Q&A websites, e.g. *Kinsey Confidential, Go Ask Alice!* and *The Teenage Health Freak*. By examining these online healthcare Q&A services, the paper investigates communication between professionals and laypeople, and explores how healthcare providers start out from their own well-defined and fixed linguistic repertoire to engage with young people's regular mode of communication. By shifting their communicative style and using the digital tools and platforms regularly adopted by young people to communicate with peers, healthcare professionals meet the young post writer in a virtual place – the health Q&A website – where reciprocal understanding is sought and good health practices are fostered. In order to analyze the established practices of professional communication in interaction with new ones emerging from the dynamic environment of the web, the study sets three objectives. Firstly, it examines how post writers to *Kinsey Confidential* on one hand disclose confidential details about their sexual and reproductive health and pose questions on sex and sexuality. On the other, it studies how healthcare providers on the website respond to their questions and counsel the Q-post writers to follow safe sexual behavior. Secondly, it discusses, compares and contrasts these structures to those found in Maglie's book *New Discourse of Healthcare* (2015, Chapter 5) and Harvey's monograph *Investigating Adolescent Health Communication* (2013, Chapters 6 and 7)[1] which both deal with a similar topic, i.e. adolescents emailing concerns and queries about reproductive and sexual health to other Q&A health service websites: *Go Ask Alice!* and *The Teenage Health Freak* respectively.

The specific themes addressed in this analysis are particularly relevant to adolescents and their understanding of sexual and reproductive health, a factor often undervalued by healthcare policymakers (Harvey 2013, 14-16). Moreover, literature in the field of adolescent health (Kraft 1993; Peremans et al. 2000; Mason 2005 in Harvey 2013) affirms that adolescents have a limited knowledge about sex, sexuality and reproduction. The mission of health Q&A websites is to fill in this gap of knowledge as they educate about sexual health through accurate, current research-based information geared specifically towards young people. While acknowledging diversity of sexuality and sexual expression, they provide non-judgmental answers to questions and requests. That is the main reason why adolescents prefer this channel of communication to disclose something private and emotional. In complete invisibility and anonymity, they can type freely without worrying "about how they look or sound" (Suler 2004, 322). On the contrary, eye-contact and face-to-face interaction can inhibit primarily young people in what they are about to say because they might fear the listener's reaction. Writing a post may also help adolescents to think clearly and find the right words to describe their turmoil (Harvey 2013, 87; 149). The study of the discourse of healthcare on Q&A websites thus has a pivotal role for the new generation of professionals, who should learn the linguistic and discursive practices of this new emerging form of professional communication, which has been changing the relationship between patients and their healthcare providers. For this reason, the third and final objective of this paper is to present in brief an experiment, which considered a Q&A website as a teaching tool in the training of future professionals in the field of healthcare.

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[1] The present study, addressing *Kinsey Confidential* for the first time, and *Go Ask Alice!* (Maglie 2015) for comparative purposes, examines not only posts written by adolescents about their sexual health issues, as Harvey does in his book (2013), but also, as Harvey's book does not, the healthcare professionals' answers to those who write to the websites.

2. Materials

2.1 Three Health Q&A websites in comparison

As mentioned above, the study is based on the following empirical foundations: inadequate health policies addressing young people and the lack of regular communicative encounters between adolescents and healthcare professionals, which cause disinformation specifically on sexual and reproductive health among young people. From this statement of facts, the study starts by investigating three Q&A websites as examples of good practice in the field of interactive health communication being designed ad-hoc and suitable for adolescents. *Kinsey Confidential* is investigated for the first time in this study. In addition, *The Teenage Health Freak* and *Go Ask Alice!* are used for comparison purposes to widen the collection of discursive choices made by post-writers and health professionals. The analysis of these three Q&A websites is intended for the detection of discursive patterns in the advice-seeking and advice-providing posts themselves, in general, and of recurring and exceptional patterns of communication adopted by these two categories, in particular. As the results of the analysis can have practical pedagogical applications, this study ends by briefly reporting a teaching experience carried out over the last academic year (2016-2017) on a post-degree course in Clinical Psychology at the Aldo Moro University of Bari.

Kinsey Confidential is a sexuality information service designed by The Kinsey Institute for Research in Sex, Gender, and Reproduction to fulfill college-age adults' sexual health information needs.[2] This site provides articles on a variety of sex information topics, podcasts, and questions and answers from the weekly newspaper column, *Kinsey Confidential*. The *Kinsey Confidential* corpus comprises 182 Q&A posts concerning topics on Birth Control, Pregnancy, Health & Disease, and Gender and Sexual Orientation (91 Q-posts totaling 5,246 words and 91 A-posts with 36,004 words).

Go Ask Alice! is a health internet resource produced and founded by *Alice!* Health promotion at Columbia University, a division of Columbia Health.[3] Besides the Q&A facility, the site offers specific pages, weekly polls, fact sheets, and quizzes, all of which to invite young readers to familiarize with the health topics dealt with by this internet health resource, which are arranged into six archives: alcohol and other drugs; emotional health; fitness and nutrition; general health; relationships; and sex and reproductive health. Although six archives make up *Go Ask Alice!*, three of these were investigated in Maglie (2015) and only one is analyzed in this study in order to harmonize with the topics addressed in *Kinsey Confidential*. Precisely, the archive on Sexual and Reproductive Health consists of 2,394 Q&A posts (1,197 Q-posts with 517,662 running words and 1,197 A-posts with 3,301,194 running words).

The Teenage Health Freak[4] is a teenage health website, the brilliant idea of Drs. Ann McPherson and Aidan Macfarlane, authors of the original Diary of a Teenage Health Freak series. Apart from the central interactive resource "Ask Dr. Ann," it offers "a range of information options and services" (Harvey 2013, 70), such as the A-Z feature which orders specific health topics alphabetically. The corpus investigated by Harvey comprises all the emails (i.e. 113, 480) submitted to *Teenage Health Freak* during the 2004–2009 period, which amounted to a total of just over two million words (74).

Kinsey Confidential, *Go Ask Alice!* and *The Teenage Health Freak* are very different kinds of Q&A websites. Graphically, for example, they stand apart: *Go Ask Alice!* does not use pictures, while the other two are first and foremost visual, greeting their visitor with images and icons.[5] Inquiries posted on these Q&A websites are done anonymously. But respondents working for *Kinsey Confidential* are not anonymous, as they are on *Go Ask Alice!* and *The Teenage Health Freak*; their names and positions at Indiana University are provided on the website.[6] All the answers analyzed in this study are written by Debby Herbenick.[7] Alice and Dr. Ann

[2] *Kinsey Confidential* (kinseyconfidential.org). Last Visited June 15, 2017.
[3] *Go Ask Alice!* (goaskalice.columbia.edu). Last Visited February 15, 2015.
[4] *TeenageHealth Freak* (teenagehealthfreak.org). Last Visited January 15, 2014.
[5] The Author is also working on a comparative study that investigates the two websites from a multimodal discourse perspective (Kress 2010; Kress and van Leeuwen 2001; 2006) to assess their communication potential and efficacy.
[6] Names and positions are available at https://kinseyconfidential.org/people/.
[7] She is an associate professor in the Indiana University School of Public Health-Bloomington, Director of the Center for Sexual Health Promotion (School of Public Health), and a research fellow at The Kinsey Institute. She has been writing the *Kinsey Confidential* Q&A since 2003.

for *Go Ask Alice!* and *The Teenage Health Freak* respectively are virtual personae who stand for teams of real healthcare providers.
Giving details about the structure of this study, it first addresses the two portions (Q-part and A-part) of the *Kinsey Confidential* corpus separately so that it is easier to monitor the specific health communication styles adopted by post writers and healthcare professionals when writing about sex and sexuality-related matters. Then, it moves on to discuss the discursive practices and strategies of the website in the light of that already found in Maglie (2015) and Harvey (2013) in order to add new insights to our understanding of how adolescents voice their sexual health problems and doubts, and to help us better understand the category of healthcare professionals. All the precious information obtained from this study is finally considered from a didactic perspective so that a new generation of professionals may gain familiarity with the potential of Q&A websites in the healthcare field.

3. Methodology and Research Questions

The study makes reference primarily to the US-based Q&A website, *Kinsey Confidential*, but develops in parallel with Chapter 5 of Rosita Maglie's *The New Discourse of Healthcare* (2015) and Chapter 6 and 7 of Kevin Harvey's *Investigating Adolescent Health Communication* (2013). The former chapter conducts the investigation into how the post-writer and healthcare provider at *Go Ask Alice!* communicate with each other online concerning matters of some delicacy, i.e. sex and privacy. The latter chapters deal with adolescents' reproductive health concerns and questions on sexually transmitted infections sent to the UK-based website *The Teenage Health Freak*.
Sex, condom(s), pregnant and *HIV* are addressed by Maglie and Harvey as they rank very high in their corpora, and the context of occurrence of such words shows that teenagers commonly use a medico-technical register in their online requests for sexual health advice from professionals, meaning they can describe themselves (their anatomy and sexual identities) meticulously and with explicit lexical accuracy (Maglie 2015, 270; Harvey 2013, 34). What emerges in the advice seekers' questions is the gap in their knowledge of sexual health and illness in general, and of how birth control methods work (e.g. condom use), in particular. The social need to inform youth about age-related issues, such as birth control, sexually transmitted infections and the professional demand for effective healthcare delivery, spurred this study to investigate the specific health communication style and behavior adopted by post-writers on Q&A websites to plan a teaching experiment using these Q&A websites in the training of prospective psychologists at the University of Bari. These are the research questions addressed in this study:

> 1) How do post-writers to *Kinsey Confidential* describe their health concerns and ask for information and advice?
> 2) How do healthcare professionals at *Kinsey Confidential* respond to these concerns and requests?
> 3) What (dis)similarities are there in *Kinsey Confidential* when compared/contrasted with *Go Ask Alice!* and *The Teenage Health Freak*?
> 4) What role(s) do Q&A websites play in English language teaching?

4. Results

4.1 *The Kinsey Confidential*

The research looks at four different sections of the *Kinsey Confidential* corpus (Birth Control; Pregnancy; Health & Disease; Gender and Sexual Orientation)[8] and each of them is split into the Q-post and A-post part. The analytical approach to the *Kinsey Confidential* corpus uses a set of corpus tools (i.e. wordlist, collocations and concordances) which are instrumental for the identification of salient themes and the detection of frequency patterns distributed throughout the different sections of the corpus. For this study, *Wordsmith Tools* (Scott 2008), version 5, was used to generate and sort word and frequency lists, to compute and sort concordances, and to produce collocates. The analysis is organized around the most

[8] The *Kinsey Confidential* website has other sections not included in the corpus. They are: Bodies; Common Problems; Gender; Pleasure & Orgasm; Relationships & Love; Sex Research; Sex Therapy, and Sexual Assault.

frequent language items in context so as to provide an explanation in terms of discourse significance for each of them, firstly presenting data from the Q-part and then from the A-part of the *Kinsey Confidential* corpus. Examining both the advice-seekers' questions and the health professionals' answers, the word frequency list shows that *sex, pregnant/pregnancy, birth control* and *condom(s)* are the most frequent nouns in both the Birth Control and Pregnancy sections; *sex* and *HPV* in the Health & Disease section; and *people, women*, *men* and *sex* in the Gender and Sexual Orientation sections. As the word *sex* ranks very high in all the sections, the study also investigated its language behavior in context without considering the division of the corpus into sections. Then *pregnant/pregnancy, birth control* and *condom(s)* are analyzed exclusively in the Birth Control and Pregnancy sections. HPV is the most mentioned health issue in Health & Disease and studied in this section alone. Lastly, the predominant focus on *people*, *women* and *men*, peculiarity in the Gender and Sexual Orientation sections, is only addressed in these specific sections.

4.2 *Sex* in the Q-part of the *Kinsey Confidential* corpus

Sex (85 occurrences [o.]) in the Q-post part of the *Kinsey Confidential* corpus is never used in the sense of gender but when it solely indicates physical activity. Different types of sex activity and sex toys are considered in young post-writers' questions (*oral sex* [8 o.], *anal sex* [6 o.] and *dry sex* [3 o.], *sex toy(s)* [4 o.]) and their worries concern the possible unpleasant consequences of their specific sexual behavior. Sexually transmitted infections (STIs) and pregnancy are their constant source of worry (e.g. "Is a yeast infection possible from *oral sex*?," "How unsafe is *anal sex* without a condom?," "My boyfriend and I had *dry sex* [...]. What are the chances I could get pregnant?," "I inserted a *sex toy* into my vagina and [...] there was a little blood afterwards. Is this harmful?"). *Have + sex* is the most recurrent structure in the concordance list (34 o.). The first personal pronouns *I* and *we* precede the conjugated verb in finite clauses twelve and six times respectively. When *I* goes before the lemma *have + sex*, it is always followed by the preposition *with,* the possessive adjective *my + boyfriend/girlfriend*, *husband/wife* (1,2,3), except when the Q-post writer is questioning their sexual orientation because on that occasion *with* is followed by the indefinite *another/a + man/woman* or by the plural of both nouns (*men/women*) (5). The intimate relationships recounted by the Q-post writers are invariably destroyed by the shadows of pregnancy, disease and doubt. They give a clear account of the facts which are placed in a temporal sequence: the morning after pill taken *twice* (2), the test positive for gonorrhea obtained *a week ago* (4). They show a knowledge of medical terminology: *vaginismus* (3) and *gonorrhea* (4 in the US version) and use it properly: they know that one of the problems linked to vaginismus is difficult painful intercourse (3), and that gonorrhea is sexually transmitted. In other words, their personal accounts are written informally making reference to their lifeworld but also using medical terminology correctly.

> Concordance lines for *I/we* + the lemma *have sex* + *with*:
> 1. I want to *have sex* with my girlfriend but she is afraid of getting pregnant.
> 2. I'*ve been having sex* with my boyfriend [...] I have had to take the morning after pill twice.
> 3. I have vaginismus and I can't *have* penetrative *sex* with my husband.
> 4. My husband and I [...] we never had sex with anyone else after that. A week ago, he tested positive for gonorrhea.
> 5. I like *having sex* with women but I want to know if having sex with a guy would be something I'd like, too.

4.3 *Sex in the A-part of Kinsey Confidential* corpus

Sex (398 o.) in the A-post part of the *Kinsey Confidential* corpus is used in the same contexts detected in the Q-post part. In consequence, it occurs only with the meaning of physical activity and its most usual collocates are the lemma '*have + sex*' (78 o.), *sex toy(s)* (46 o.), *oral sex* (33 o.), *anal sex* (31 o.), *dry sex* (15 o.), and *vaginal sex* (11 o.). However, the whole tenor of discourse changes as the A-post is aimed at solving health concerns and defusing the Q-post's uncertainties towards their sexual behavior. First of all, the vision of sex is of proven worth and sets the basis of the intervention which is prejudice-free and not judgmental about people and their sexual styles. Debby Herbenick starts comparing what prevents people from enjoying sex (certain families, cultures and religions) with what really counts in sex (intimacy, accessibility to all adults

notwithstanding their marital status and sexual orientation) (6). In the sixth example we may also notice the contrast between the former (*dirty*, *sinful*) and the latter adjectives (*intimate*, *beautiful*) related to sex and the structure *only open to* vs. *open to any* which stress the opposite views people may have on sex. Then she insists on the total freedom of choice for each couple (i.e. *you two*) to experience sex as they wish. Debby's advice is preceded by a clause in the imperative (*remember*) because it is extremely important for her that the Q-post writer does not consider *sex* only in one only way as it changes for the person who experiences it (7). In so doing, *sex* becomes *fantastic, pleasurable and relationship-building* (8) on the condition that intercourse is consensual.

> Concordance lines that describe what *sex* is for *Kinsey Confidential*:
> 6. Some family, cultural and religious messages suggest that *sex* is dirty or sinful or only open to certain people (e.g., married adults interested in procreation) whereas others construct sexuality as being intimate, beautiful and open to any adults (regardless of sexual orientation, interest in having children or marital status).
> 7. Remember: there is no one way that *sex* has to happen, and you two are free to invent your sex play in a way that fits with your values, your feelings for each other, and your ideas about how you want to relate to each other sexually.
> 8. *Sex* can be fantastic, pleasurable and relationship-building when it is shared with a partner who not only agrees to have sex with you, but who very much wants and desires to have sex with you.

On these premises, Debby supports the Q-post writer to whom sex-toying is a source of embarrassment. She does it directly writing: "there's no reason to feel awkward! You're not doing anything wrong." Then, she uses the "you are not the only one" discourse and makes reference to research and statistics reporting that: "More than half of women and nearly half of men in the U.S. have used vibrators, and many women and men have used other sex toys too." She uses the same discursive strategy when dealing with oral sex. She cites the *US National Survey of Sexual Health and Behavior* to state that "most American men and women in their 20s and 30s had performed oral sex in the past three months." Another communicative strategy is being self-referential in order to augment trust in the *Kinsey Confidential* staff: "My research team has also found lubricant use to be associated with more pleasurable [...] masturbation with a sex toy."
When addressing the issue of different ways to have sex and risks of getting infections, she ranges her answers from being very general to very specific to the post-writer's request. In the general answer, she evaluates all sex practices (*oral sex, vaginal sex, anal sex*) which carry risks (9) and specifying what *unprotected anal sex* really means (10). In the specific answers, she directly mentions the peculiar lifeworld of the Q-post writer and his intimacy with his wife (11-12), and underlines the fundamental role of communication. Talking about sex with their partner together with other elements "make sure that sex feels good" (13) even though – Debby recognizes – at first it can be difficult, but considering all the positive effects of open communication (*enjoyable, relaxing and pleasurable* sexual life), everybody should make an effort and improve their communicative skills with practice (14). When she finds someone who already does it, she congratulates them, considering it very wise for a person to talk *about* "sex before having it" (15).

> Concordance lines for sexual practices, risks, and the role of communication:
> 9. It's not that *oral sex* itself is an unsafe practice – after all, *vaginal sex, anal sex, and oral sex* all carry risks.
> 10. It's not that *anal sex* per se is a dangerous activity. Rather, it's that unprotected anal sex – meaning anal sex without a condom – and with a partner who has an infection is what makes anal sex risky.
> 11. Even if your wife has never had *anal sex*, it is still possible to get infections [...].
> 12. If you're feeling disappointed about not being able to perform oral sex on your wife, this is something that you might try talking with her about.
> 13. Communication is key for both *anal* and *vaginal sex*, as are comfort and relaxation and checking in with each other to make sure that sex feels good.

14. Talking about sex can feel difficult at first, but it often gets easier with practice and can help to make one's sexual life and romantic relationships more enjoyable, relaxing and pleasurable.
15. Great question! I think it is really wise that you two are communicating so carefully about *sex* before having it.

When the practice of dry sex is analyzed in the light of preventing pregnancy, Debby is cautious in her answers. She justifies the presence of "conflicting information on the internet" on this issue (16), acknowledging the semantic obscurity of this expression (17). Only when she disambiguates it can she easily affirm that dry sex implies low to no chance of getting pregnant (18). The delicate question of pregnancy is also tackled when the lemma *have sex* is under study. Debby chooses to be explicit; she speaks in the first person and uses *you* to make a patient-centered answer. However, she employs *I would also* (19), *I would strongly* (20), *you might* (21) to reiterate what she expects to happen and be the case.

Concordance lines for *dry sex, have* + *sex* and *pregnancy*:
16. I imagine one reason why you might be reading conflicting information on the internet is because it's impossible to know what exactly people are doing when they say that they are having *dry sex*.
17. It really depends on what you mean by having had 'a form of *dry sex*'.
18. If you were wearing underwear, then your chances of becoming pregnant from *dry sex* – also called dry humping – border on "low to no chance."
19. I would also encourage you to consider using a condom if or when you *have sex* with your husband until you know that he no longer has gonorrhea.
20. If you and your boyfriend have decided to *have sex* with each other, then I would strongly suggest exploring other options for preventing pregnancy.
21. If you are interested in and ready to *have sex* together, you might consider using hormonal contraception.

4.4 *Pregnant/pregnancy,* and *condom(s)* in the Q-part of Birth Control and Pregnancy sections

Pregnant (30 o.) mostly occurs with the verb *to get* (21 o.) conjugated in different tenses and in each occurrence the semantic prosody is really negative both when Q-post writers doubt and/or fear of being pregnant ("Can I have sex at any time without getting pregnant as long as I take the pill?;" "Should I be worried that she's pregnant?") and when they disclose their failure to get pregnant ("I've been trying to get pregnant but it hasn't worked yet. What should I do to get pregnant?"). In all of these instances, they have no idea about how to prevent or ensure pregnancy. Pregnancy is used only four times in company with *risk* (2) and *test* (1) in noun phrases that show that Q-post writers can use simple stacked noun phrases – typical of medical discourse or of medical popularization, however they use them rarely. *Condom(s)* (19 o.) are exclusively used for preventing pregnancy (100%) ("she is afraid of getting pregnant. I told her that I will use condoms during sex") and not as a protection from STIs. They are curious about different condom types and materials ("I've heard that lambskin condoms can give better sensitivity"*)* and show some to be for and some against condom use ("We have found that neither of us like condoms at all" vs. *"*I normally use regular latex condoms when I have sex with my girlfriend").

4.5 *Pregnant/pregnancy, birth control* and *condom(s)* in the A-part of the Birth Control and Pregnancy sections

While *pregnancy* in the Q-post part is used by lay Q-post writers only four times as stated above to exemplify medical discourse or its popularization, *pregnancy* in the A-post part is more used (116 o.) than the adjective pregnant (75 o.). However, although Debbie's focus is more on the condition of being pregnant than on the person who is afraid of or keen to get pregnant, her answer is seldom general but considers the particular request of the Q-post writer (reference to *you* and the partner) and their state of mind (anxiety, concern, fear) (22, 23,24).

Concordance lines for pregnancy and patient-centered discourse:

22. It may save you both the anxiety of worrying as much about *pregnancy* risk in the future.
23. If you are concerned about *pregnancy* risk [...] If you and your boyfriend.
24. Fear of *pregnancy* may be a very real reason why your girlfriend does not want to have sex yet.

As most of the Q-posts ask further information on how to prevent pregnancy, in consequence Debbie's answers deal with the same topic. But before talking about birth control methods, she underlines the importance of education which should be specially geared towards younger generation ("We get a lot of questions [...] about pregnancy risk. [...] How important it is to educate young women and men about pregnancy and sexuality and what does (or doesn't) put a couple at risk of becoming pregnant"). Lexis that precedes and follows the word *pregnancy* shares a common semantic prosody (e.g. *avoiding pregnancy*) and consequently the frequent collocates include prepositions like *against* (7 o.), patterns like *risk for* (5 o.) and *risk of* (14 o.) and *risk* (17 o.), verbs like *prevent* (14 o.). The "against pregnancy" discourse revolves around contraception pill assumption and from when they become *effective* (25, 26, 27). The patterns *risk for* and *risk of* put on the left and the word *risk* put on the right of the head noun show cases of sentences ranging from no possibility to high possibility of getting pregnant and from general (28) to detailed (29) description of how pregnancy works. Then Debby goes on to list different devices which prevent pregnancy risk (30, 31), always taking into great consideration the Q-post writer's emotional turmoil that she needs to calm down (32, 33). When she uses the verb *prevent*, statistics play the role of stating facts and confirming with certainty the efficacy of birth control pills and condoms (34-35).

Concordance lines for *pregnancy* and collocates:
25. Women who have questions about how soon their pill becomes *effective against pregnancy* [...]
26. [...] the pill may even be effective *against pregnancy* as early as one full week after starting to take it.
27. Most birth control pill brands are effective *against pregnancy* after a woman has taken them consistently [...]
28. Any type of sexual contact that might put you at *risk for pregnancy*.
29. If semen and the vagina don't reach each other even remotely, then there is no *risk of pregnancy*.
30. [...] natural skin condoms greatly reduce the *risk of pregnancy*, [...]
31. [...] pill, patch, shot or ring that will are highly effective at reducing *the risk of pregnancy*.
32. To further reduce your *pregnancy risk* and to enhance your *peace of mind*, consider [...]
33. [...] in regard to *pregnancy risk*, you can relax and rest assured that [...]
34. Birth control pills are about 99% effective at *preventing pregnancy* with perfect use, and about 92% effective with typical use.
35. condoms are about 97% effective in *preventing pregnancy*.

Due to its high frequency, the lemma *become pregnant* (55 o.) is investigated when *pregnant* (75 o.) is addressed. This lemma seems to lead Debby to consider strategies for becoming pregnant (65%) over the opposite strategies used to prevent it (35%). She stresses that *becoming pregnant* is something that starts from lifestyles and finishes with the sexual act (36, 37, 38). Moreover, she deals with the delicate issue of contrary views in a couple about the idea of becoming parents (39), and in that case she underlines the important role of univocity of objectives and of sincere communication between the two (41). To do that, she uses the metaphor of the tango which, in order to be danced, needs two people (39), and tries to put herself in the husband's shoes (40) in order to consider his reasons for being against having a child.
When Debby addresses the issue of *becoming pregnant*, she even answers very simple and at first sight obvious questions. She does it thanking the post-writers for the question on whether a homosexual sex act can cause pregnancy (42), relying on a simple and clear physiological explanation (43) or posing herself both questions and short answers playing on the different shades of meaning between *likely* and *possible* (44), to tackle the doubt about the correlation between menstruation and the risk of becoming pregnant, or

being direct with a clause in the imperative form when post-writers state their unwillingness to become parents (45).

Concordance lines for the lemma *become pregnant*:
36. Relaxation can also be an important part of *becoming pregnant*.
37. The woman's diet can help her to increase the chances of *becoming pregnant*;
38. Also, timing is a consideration: in order to have the best chances of *becoming pregnant*, [...] your partner [...] prior to ovulation as well as on the day you ovulate.
39. You want to *become pregnant* and he doesn't. It takes two to tango for a reason, [...] and perhaps a major reason is that maintaining a healthy pregnancy and raising a child is often healthier for the child – and healthier for the couple – when it has been done without deception.
40. He may have good reasons for not yet wanting to *become pregnant* together than go above and beyond money.
41. If you would like to *become pregnant*, please consider ways in which you could talk to your husband.
42. Thanks for your question. In order to *become pregnant* from sex, a woman would have to have sex with a man,
43. The reason that it is unlikely to *become pregnant* during a woman's menstrual period is because a pregnancy cannot occur if there is not an egg and some sperm to begin with.
44. Is it likely that a woman will become pregnant while she is menstruating? No. But is it possible? Absolutely.
45. That said, if you two aren't ready to possibly *become pregnant*, then use birth control.

Stating that the issue of *birth control* (92 o.) regards "many couples [who] struggle with finding a birth control option that is right for them in terms of cost, convenience, health issues, side effects, ability to use it correctly, and personal preferences," Debby highlights the importance of getting extra information and offers options and sources where a Q-post writer can have access to it (e.g. healthcare provider, the internet) (46, 47). However, an *admirable* quality for access to information is firstly to have a good flow of communication within the couple (48).

Concordance lines for *birth control*:
46. The best place to go for information related to *birth control* options is your healthcare provider.
47. To learn more about *birth control* methods [...] check out our birth control and pregnancy resource pages or Planned Parenthood's website.
48. It's admirable that you and your fiancée have been able to talk about *birth control* options.

Among the different birth control options (10) and methods (7 o.), Debby writes more about the pill (36 o.) and its diverse effects on the woman's health (not listed in this study for space reasons), but, at the same time, warns the Q-post writer against the partial role of this drug which surely grants control over unwanted pregnancy but does not protect from STIs. Debby uses adjectives such as *reliable, effective,* and *excellent* to be explicit about the more or less total efficacy of different birth control methods/options which she is considering.

Concordance lines for *birth control pill(s)* and *birth control methods/options*:
49. These days, *birth control pills* (also called oral contraceptives) are used by women for numerous reasons.
50. You and your boyfriend are wise to consider pregnancy risk issues and to pay attention to your risk of [...] (STI), particularly since birth control pills don't protect against STI.
51. If you are not using condoms or other reliable forms of *birth control* (such as the birth control pill, patch, shot, ring, implant, or IUD) then you could become pregnant from this kind of sex.
52. [...] a range of highly *effective* birth control options available (including birth control pills, patches, rings, and shots, as well as correct and consistent condom use).

53. Condoms are an excellent form of *birth control* and they also reduce the risk of some but not all STIs.

Condom(s) (60 o.) are thus another method of birth control that can also reduce the risk of STIs (54). Debbie's answers mainly relate to sex *with* or *without a condom*. In case of sex without a condom, she appeals to the post-writers' sense of responsibility (55) due to greater risks (56) that this choice (57) entails. On the other hand, in case of sex with a condom, she lists different materials which condoms can be made from (58), but she warns against natural skin condoms as they do not protect from STIs (59). She continues to instruct the Q-post writer presenting another type of condom that can offer protection both against STIs and pregnancy risk (60) and explains the reason why some men prefer wearing it (61).

Concordance lines for *condom(s)*:
54. Using *condoms* can greatly reduce one's risk of transmitting several sexually transmissible infections.
55. If you stop using *condoms*, how will you feel about assuming primary responsibility for reducing pregnancy risk?
56. Having sex without a *condom* opens a couple to greater risks, and you are wise to consider these.
57. By having sex with a *condom*, you and your husband have made the choice to not risk getting pregnant at the moment.
58. Lambskin and other natural skin *condoms* are certainly one alternative to latex *condoms*.
59. Although natural skin *condoms* greatly reduce the risk of pregnancy, they do not provide protection against [...] STIs.
60. Another option is to consider using polyurethane *condoms*, which – like latex condoms – can reduce the risk of both pregnancy and infection.
61. Some men find that sex feels warmer and more natural when they use polyurethane *condoms* as opposed to latex condoms.

4.6 *HPV* in the Q-part of Health & Disease section

HPV (11 o.) is an infection that worries Q-post writers a lot. She/he is either the carrier of the infection being anxious of developing cancer/HIV (62) or of passing it to other people (63), or a healthy person being upset about the idea of contracting it (64). Such anxiety about HPV shows the post-writer's lack of knowledge in the field of sexually transmitted infections even though they know it is a virus (63) and can be visible through warts (62). In this case, the most frequent pattern to manifest their unfamiliarity with this health concern is the direct question, which exemplifies their doubts which prevent them from acting properly. Such a direct speech act can be interpreted as an informal way of using language by the Q-post writer when interacting virtually with the healthcare provider.

Concordance lines for *HPV*:
62. And is it true that people who have *HPV* warts, like me, can get cancer from the HPV?
63. There is a risk of me giving them *HPV*, and is there any way of knowing for sure if I have the virus?
64. What is my risk of contracting *HPV* from oral sex?

4.7 *HPV* in the A-part of Health & Disease section

The use of *HPV* (128 o.) in the A-post part is mainly directed at achieving an educational purpose. Such objectives lead Debbie to describe the infection (i.e. strains, transmission routes, vaccines and cancer-risk). Even though the tone is educational and the setting is technical, she uses different strategies to defuse the Q-post writer's fear. Firstly, HPV is regarded as commonplace (65) among sexually active women and men and should not be considered as a problem, which concerns only the Q-post writer. The use of percentages reiterates the idea that a significant majority of people can get it (66). Declarations in the first person show that the A-post writer has no doubts about what has been just written and this is the right occasion to give close support to the Q-post writer (67).

Concordance lines for *HPV*, the use of percentage and declaration in first person:
65. HPV is extremely common and, although most sexually active women and men have been exposed to HPV from a sexual partner [...]
66. An estimated 60-80% of sexually active women and men will be exposed to HPV over their lives.
67. I typically tell people that HPV is one of those infections that most sexually active adults will come into contact with. It doesn't make you strange, unusual or "diseased" in any way.

Secondly, HPV strains are listed according to a decreasing scale which helps the Q-post writer understand that not all the HPV strains but only a few of them can cause cancer (68). Again, numbers help to rationalize and decrease the post-writer's worries mainly when speaking about possible health problems linked to the infection (68, 69). The rarity of developing cancer is reinforced many times focusing the attention either on the infection itself (70), on people (71) or on you (72). In (72), the imperative form ensures clarity and directness, and it adds warmth to the answer. However, HPV can produce no signs (73) and sometimes it is invisible to the naked eye (74), that is why Debbie relies on the post-writer's principles of responsible and consensual sexual behavior (75).

Concordance lines for *HPV*:
68.There are more than 100 strains of *HPV*. Somewhere around 40 of these can affect the genital skin. Only a few of these strains can cause genital warts. And only a few of these strains are linked to cancer.
69. There are more than 100 strains of [...] *HPV*, about 30 of which are sexually transmitted and might cause problems.
70. Just because an *HPV* strain has been linked to cancer does not mean that it will cause cancer.
71. [...] most people who have *HPV* do not go on to develop cancer.
72. Please note that this does not mean that if you have *HPV*, that *you* will also get cancer.
73. Most people with *HPV* do not experience any noticeable or problematic symptoms of infection.
74. You can't tell if someone has an *STI* by looking at their genitals or mouth [...]
75. people who have *HPV* or genital warts should tell their current or potential sexual partners that they have HPV.

Thirdly, HPV transmission routes are clearly listed and *people* is employed to make generalizations in order to avoid direct reference to the Q-post writer, which can hurt their feelings (76). *People* become *men* (77) and *males and females* (78) as when HPV tests and vaccines are dealt with. An important contribution to young people's knowledge about HPV is made when there is the reference to condoms and their role in preventing the transmission of the infection (78). Debby invites the post-writer to get information on HPV and provides them with many sources (e.g. websites, healthcare providers).

Concordance lines for *HPV* transmission and on good information from professional sources:
76. People get *HPV* from sexual contact with other people. *HPV* can be transmitted during oral sex, vaginal sex or anal sex.
77. We don't have reliable *HPV* tests for men so most men who have *HPV* may not know that they have it [...]
78. Several *HPV* vaccines have become available and, in the US, are recommended for both males and females.
78. Since *HPV* is transmitted from skin contact and condoms do not cover all of a person's genital skin [...] using a condom can certainly reduce the risk of transmission.
79. You can learn more about both *HPV* and *HIV* on the web site of the Centers for Disease Control and Prevention.

80. For the most current information about HPV and related vaccines, check out the CDC page on *HPV* and/or talk with your healthcare provider.

4.8 *People, men and women* in the Q-part of Gender and Sexual Orientation sections

The word *men* (18 o.) occurs slightly more than the word *women* (15 o.) but both are referred to in the same posts, and in three concordance lines they even co-occur linked with the conjunction *and.* The discourse around these two words concerns the post writer's feeling of attraction to someone (men and/or women) of the same and or opposite sex, which causes them to feel confused as after stating their liking for a particular gender they use *but* (81,82, 84 and 86), *although* (85) or ***can't*** (83) which contrast with what they have said before, or employ *also* (84) to add that what they have just said about *men* is true for *women*. Another aspect of interest is the presence of comparatives (*more* in 81), quantifiers (*many* and *several* in 84), adjectives (*deep and meaningful* in 82 and *strong* in 86) which contribute to stress their intense emotional involvement towards men and/or women.

Concordance lines of *men* and *women*:

81. I am attracted to both *men* and *women*, but slightly more to *men*.
82. I am attracted to *women* sexually – not men – ***but*** I can make deep, meaningful connections with *men*.
83. Although I find myself attracted to both *men* and *women*, I ***can't*** imagine myself having sex with them.
84. I am afraid of many *men*, ***but*** I am *also* attracted to several; the problem, of course, is that I am *also* attracted to several girls and *women*.
85. I have only had sexual experiences with *men*, ***although*** I mostly fantasize about sex with *women.*
86. I have strong feelings for *men*, and enjoy physical intimacy with *men*, ***but*** why do most of my fantasies about sex involve *women*?

4.9 *People, men and women* in the A-part of Gender and Sexual Orientation sections

People is used 106 times. Quantifiers like *some* (21 o.)*, many* (10 o.), *more* (5 o.) and *most* (4 o.) and the adjective *other* (12 o.) precede the head word and stress the idea that there are no sexual universals which characterizes all human beings. This lack of only one principle that applies in all cases is exemplified in the following concordance line: "Sexual orientation is complex and some people have different ideas about how they come to label their own sexual orientation." In another post we read: "For some people, however, sexual orientation labels [...] feel restrictive. Some people prefer to not label themselves in terms of sexual orientation." This remarkable breadth of vision on sexual orientation as something fluid (Kinsey & Mart 1998) is confirmed by another concordance: "some people just don't feel that they can easily fit their sexuality into a box." Even though the quantifier before the word *people* changes and it becomes *other*, the discourse does not change. On this issue, the healthcare provider working at *Kinsey Confidential* even feels the need to intervene in person: "Based on my experiences as a sexuality researcher and educator, I certainly do not feel comfortable labeling other people in terms of their sexual orientation." Then, when analyzing *more people* in context, the reference is directly to Kinsey (1998) and to his revolutionary ideas in the field of sexuality: "Dr. Alfred Kinsey [...] felt that there was fluidity in human sexuality and that more people would be attracted to both sexes if society was more accepting and embracing of the diversity of human sexual attraction [...]." The end of the quotation mentions the greatest challenge for modern society that consists in overcoming prejudice around people's sexual preferences. Kinsey's concept of fluidity and societal stigma are again cited in this collocation: "Dr. Kinsey also wrote about the possibility that more people would express an interest in both women and men if there weren't so many societal taboos around being sexual with members of one's own sex." *Many people* indicates a large number of human beings and could be interesting to look at it in context to derive what attitude *many people* have about this issue. The two concordances below show either that *many people* have their own opinion on sexual orientation (87) or who deeply think about it (88), but there is no test or easy way to determine sexual orientation.

Concordance lines for *many people*:

87. Although *many people* have their own theories and ideas related to sexual orientation, there is no true "test" that one can take to determine whether they are bisexual, heterosexual, homosexual or some other evolving identity.
88. Determining Sexual Orientation. Great question! Although *many people* wonder if there is an easy way to know if a person is gay, straight, bisexual or some other sexual orientation, the fact is that there is not.

Women (106 o.) and *Men* (84 o.) in the A-post part collocate and are tied with the conjunction *and*. Again – as seen in the Q-post part – the discourse around these words is on sexual attraction, which is absolutely indeterminate as research and the healthcare provider at *Kinsey Confidential* state (89-90).

Concordance lines for *men and women*:
89. Research supports the idea that both *men and women* can be attracted to people of both sexes.
90. Not everyone is equally attracted to both *men and women* – some people are attracted mostly to men and a little to women. Others are attracted mostly to women and a little to men.

Another worthwhile aspect to consider is the post writer-centered discourse which normalizes the manifold states of mind involved in gender and sexual orientation (91, 92 and 93)."You are not the only one" discourse helps the Q-post writer to feel less guilty and prone to disclose their confusion and eventually finds the answer that provides relief to their uncertainty about their sexual choices and preferences.

Other concordance lines for *men and women*:
91. Many *women and men* feel as you do – that the coming out process is not only about coming out to other people, but that it starts with oneself.
92. You may find it helpful to know that some people go in and out of relationships with both women and men.
93. It seems like you're struggling with issues that many men and women – regardless of sexual orientation – encounter.

5. Discussion

5.1 *Sex*, *Pregnant/Pregnancy*, *condom*, and *STIs* across the Q&A websites

Addressing sexual and reproductive health, this study investigates whether a good relationship between adolescents and healthcare professionals endures online across Q&A websites even when the post-writer addresses delicate issues, and even when the healthcare provider is asked to responsibly guide the advice-seeker through the physical and social complexities of sexual and reproductive health.
For the first two questions of this research study, we noted that the two parts of *Kinsey Confidential* corpus share the same topics (e.g. focus on people when dealing with sexual orientation, sexual activity, use of condoms, birth control issues – pregnant/pregnancy – and sexually transmitted infections [STIs]). The lexis related to these topics coincides in terms of numerical frequency, except for *pregnant* and *pregnancy* which are the most used words in the Q-post and A-post parts respectively but not vice versa, and the case of *birth control* which ranks very high only in the A-post part. The non-coincidence in numbers of occurrence and in the lexis used by Q-post and A-post writers indicates diverse communicative reasons and objectives. Q-post writers tend to relate health concerns according to his or her personal opinion and point of view; nonetheless, these writers usually express their concerns accurately, addressing sexual issues in precise terms. The A-post writers, in response, generally have education about safe sex behavior as their main objective, even though the data reveals that these writers never lose sight of the individual who needs help.
The third question of the study involves the comparison of the Q-posts of *Kinsey Confidential* with Q-posts of *Go Ask Alice!* and *The Teenage Health Freak* and of A-posts of *Kinsey Confidential* with A-posts of *Go Ask Alice!* in order to add new data to our understanding of how young adults and healthcare providers deal with sensitive health concerns in posts. In particular, the comparison was done in order to see if *Kinsey Confidential* post-writers, in their online exchange for sexual health advice, articulate these concerns in ways

similar to the teenagers in Harvey and in Maglie for the Q-posts, and ways similar to healthcare provider solely in Maglie for the A-posts.

Firstly, looking at the numerical frequencies across the three works, a significant similarity has become immediately obvious: *sex*, *condom(s)*, *pregnant/pregnancy* rank very high in all these three studies. The coincidence of these words has thus facilitated the detection of similarities and differences across these three groups of post-writers.

Harvey and Maglie reveal that adolescents commonly adopt a medico-technical register when describing themselves, their anatomy and their sexual identities (Harvey 2013, 34-35; Maglie 2015, 270). The same goes for *Kinsey Confidential*. Writers with explicit clarity speak about sexual matters in great detail. In particular, as far as *sex, condom(s), pregnant,* and *STIs* are concerned, the comparison of these studies proves something already detected in Harvey and Maglie, namely, how young people are uninformed about sexual and reproductive health. *Kinsey Confidential* appears to be similar to *The Teenage Health Freak* but different from *Go Ask Alice!* in the analysis of *condom*. *Go Ask Alice!* post-writers use *condom* to describe a contraceptive method and a means of protection against sexually transmitted diseases (Maglie 2015, 141), while this study and Harvey's analysis show that even though the condom is the most used method of contraception among advice-seekers, there are no collocates referring to the semantic field of sexually-transmitted infections.

Notwithstanding an apparent difference, i.e. *HIV* occurs in both Maglie and Harvey and *HPV* in this study, there is significant coincidence across the Q&A websites, when they discuss the prevalent apprehension about STIs among adolescents. The adolescents' attitude towards *HIV* in Maglie and in Harvey and towards *HPV* in this study coincides and recalls the metaphor of the "invisible contagion" (Helman 2007 in Harvey 2013): youth generally perceive STIs as something that infiltrates everyday life due to their unfamiliarity with STI transmission routes. All in all, the comparison between this study and Harvey and Maglie's chapters dealing with sexual and reproductive health not only gives us a wider picture of the ways in which young people fully disclose confidential details about their sexual and reproductive health, it also confirms how unfamiliar young people still are in regard to sex, contraception methods, and STI transmission. But insofar as health communication online offers as a new and more effective means of healthcare provision, and presents itself as a change to the future of healthcare communication and assistance, we can hopefully anticipate changes in these trends.

By posting on Q&A websites, the writer places his or her trust in an online healthcare service, and unveils intimate details about his or her sex life to an anonymous reader. When it Debbie's turn to post on *Kinsey Confidential*, or Alice's on *Go Ask Alice!*, they respond to the post-writer's confidence with respectful care and assistance. This study shows how Debby wholeheartedly supports the information-and-advice seeker in his or her difficult times not only through words of sympathy but by providing clear directions to help the Q-post writer act in such a way that he or she can enjoy a sex life responsibly, with confidence, and in good health. Such attitude explains the reasons why young people choose to write to a virtual healthcare provider. Q&A websites have successfully established an important relationship with young people (for example, consider Debbie's definition of *sex*). Clear explanations and metaphors (consider Debbie's metaphor of the *tango*) are typical linguistic features of popularization which are employed with the aim of making "the content easier to identify" (Gotti 2003, 296) by the layperson.

These two traditional manners of popularization, together with their objectives (to place medical discourse within everybody's reach), are elements of the educational mission of health Q&A websites which win over their young readership by offering information about sex and STIs in non-judgmental posts while acknowledging the diversity of sexuality and sexual orientation. For both *Kinsey Confidential* and *Go Ask Alice!*, the meaning of sex depends on the person who experiences it. When Alice defines it, she explains that the meaning of sex depends on its form: when it is a noun it does not refer to the binomial vision of sex, male and female, but it refers to all the physical characteristics a person is born with. Such a definition shows both Alice's inclusion of those gender minorities who are often put aside when sex is discussed, and her sensitive attitude to the LGBTQI community who, feeling welcome on this website and dialogic network, actively contribute to it, writing their posts about their own sex and sex-related issues. When sex is a verb it can acquire an unlimited number of meanings in both this study and in Maglie (128-137), and a *sine qua non* condition for any given sexual activity both for Alice and Debby is the principle of consent.

5.2 Q&A Websites for educational purposes

The results of studies like this one could be useful in clinical practices, and in health and education policy. In fact the two websites, *Go Ask Alice!* (last academic year 2016-2017) and *Kinsey Confidential* (this academic year 2017-2018), have been used for pedagogical purposes in the training of prospective psychologists attending a post-degree course in Clinical Psychology at the Aldo Moro University of Bari (2016-2017 and 2017-2018 academic years)[9]. By so doing, not only have students become more acquainted with the great potential of online communication in professional fields and domains, but most of all studied the professionals' linguistic and discursive practices and developed their competence in English for Psychology. Approaching the Q-posts they learnt that adolescents structure their requests around a special requirement for personal and relational matters as they think of a real person when writing the post. Reading the A-posts, they discover that they are dictated by a sense of responsibility and the healthcare providers show they are genuinely concerned about the health condition. Particularly, looking at occurrences of *sex* in the A-portion of the corpus, they learnt how a health provider should define such word to adolescents, i.e. providing them with a broad and inclusive definition of it through different argumentative patterns (e.g. catchphrases or figurative language). They understood the importance of an empathetic approach to the Q-post writers' sex troubles and experimented how a healthcare professional can establish a mutually supportive and caring relationship with the information-and-advice seeker, even though s/he is not physically present. On most occasions, addressing Q-posts on sex issues in class was something humanely edifying for Italian students, because they identified with their Anglophone counterparts when they read and critically discussed questions which show adolescents being misinformed about such problems. They shared with the Q-post writers the same embarrassment in going to health services or in buying condoms– only evidenced in the Q-posts at *Go Ask Alice!* (Maglie 2015, 152) and felt the urgency to take measures against misinformation and rumors on sex, and finally agreed upon the effectiveness of a Q&A website to provide accurate information and advice to adolescents.

6. Concluding Remarks

Taken all together, it is hoped that the present study may have contributed new insights into the communicative potential of online healthcare and the benefits of the interactional process of young people and health professionals when they communicate online about sexual and reproductive health. Moreover, the Q&A websites applied to the teaching of the specialized language of English for Psychology foster new educational pathways in the training of future professionals, who should be encouraged to learn how to adjust their communicative styles and to use a language suited to virtual interaction in order to promote understanding and implement behavior for good health among the younger generations.

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[9] Due to page restrictions, the Author postpones in-depth discussion of this didactic experience in a future dedicated paper.