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‘Berrypicking’ in the formation of ideas about problem drinking amongst users of alcohol online support groups

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Abstract. Beliefs held by individuals about the illnesses or problems that affect them have been shown to impact upon the health and other outcomes that they achieve. Online support groups (OSGs) are one source of information used by those with health problems which may influence or determine what they think about their particular issue and how to resolve it. Problem drinking remains a major source of significant costs to society. This article explores whether the discussion forums of alcohol OSGs that do not follow the 12-step philosophy of Alcoholics Anonymous influence the formation of these beliefs, reporting on the outcome of thematic analysis of interviews with 25 users from five groups. It argues that Bates’ ‘Berrypicking’ model of information searching is helpful in illuminating group members’ information seeking activities. It looks at the four key aspects of berrypicking identified by Bates – the nature of the search query, the information ‘domains’ drawn on, the information retrieved and the search techniques used. The study finds that users are typically berrypickers, selecting information from different sources and forming their own interpretations.

Keywords: Berrypicking, Information seeking, Online support groups, Alcohol

1 Introduction

The beliefs/views that an individual holds about an illness or problem affecting them have been shown to have an important impact on how they deal with the issue, and consequently on its outcomes in terms of health, social welfare or other factors [1-4]. It is therefore important to understand more about how these ideas develop and which sources are influential in this regard. In the case of problem drinking, an issue with many serious costs for society, families and individuals, there are many differing beliefs about what an alcohol problem is and how to deal with it. There is no universally accepted explanation and the choice of interpretation is not automatic (options available include that it is a brain disease, a learnt habit, a moral ‘failing’ or personality flaw). Differing sources, including support groups, an important source of help for problem drinkers, espouse differing approaches. Exploring how lay ideas are constructed could help to illuminate what matters for creating a good match between users and these groups, an area where the evidence is mixed [5-6].

The internet provides access to several different types of online communities which provide people with information (e.g., wikis, social question and answer sites). Many are now turning to online support groups (OSGs) for information as well as support in dealing with a very wide range of health problems e.g., diabetes, cancers, stroke, heart disease. Since the 1990s there has been an increase in the number of alcohol online support groups (AOSGs) which can be especially useful for people who want more anonymity than a face-to-face group offers, those with problems accessing face-to-face groups or who simply prefer online interaction. This paper explores whether and how these groups impact on the beliefs about problem drinking held by their users. It focuses on the under-researched area [7] of groups that do not follow 12-step programs for recovery. The 12-steps were developed in the 1930s by Alcoholics Anonymous (AA) the most well-known and widespread support group for problem drinkers. They set out how to recover from problem drinking and have been adopted by many other addictions and by many treatment programs [8]. The paper explores the general development of users' perceptions of problem drinking overall in terms of the 'berrypicking' model of information searching proposed by Bates [9]. It will show that this is a helpful model to describe the information search processes occurring in AOSGs, which may also apply to online support groups for other addictions and/or other health conditions. (Please note: this study uses the term problem drinking to include all drinking that is deemed problematic and makes no distinction between this and alcoholism, seeing these as on a continuum in line with DSM-5's definition of Alcohol Use Disorder [10].)

2 Literature Review

Information seeking, or the "strategies a person devises in order to find information" (Ford [11]p14) is an important facet of information behaviour. One model of information searching within this area is Bates' berrypicking model. This arose from work on human information searching which showed that the common 'one stop model' of searching did not reflect the reality of what happens in real life. Bates distinguished berrypicking from the linear 'one stop' searching model in four ways:

1. Queries change and evolve during the course of the search, and do not remain static from start to finish
2. The domain searched may change, with individuals using multiple sources of different kinds
3. The query is not satisfied by one ('best match') set of references, but "by a series of selections of individual references and bits of information at each stage of the ever-modifying search" ([9] p410)
4. A range of search techniques are used, not just formal subject searching

Bates' work has been drawn upon by many researchers in the field of information searching including Lueg & Bidwell [12] in their writing on information behaviour and 'wayfinding', and Kumpulainen [13] on information trail modelling.

A wide range of health-related support groups are available in face-to-face and online format, with different health areas attracting different levels of research interest (breast cancer, for example, has enjoyed considerable research attention). These groups frequently include discussion forums amongst their other functions. Within these, people can ask questions, read others' stories and exchange information, especially that borne out of the personal experience of someone else who has the problem and therefore understands it from the inside. Information behaviours in these virtual communities have been studied from differing perspectives, for example, as small worlds exhibiting normative behaviour [14] or as sites of the co-creation of distributed knowledge [15], which are outside the scope of this paper.

In terms of alcohol support groups, AA in its face-to-face form, has received much research attention including on how it impacts on users' ideas of problem drinking. For example, Cain [16-17], Lave & Wenger [18] and Swora [19] amongst others have examined how AA transmits its beliefs through story-telling, radically altering users' ideas about the issue. There has been less attention paid to online AA and other 12-step groups, and less still on non-12-step groups, as recently noted by Zemore [7], despite the fact that the latter are helpful alternatives to the AA approach. They expand the choices available to users who might not otherwise receive support. Research on information behaviors in AOSGs includes analysis of topics discussed online [20-21] and analysis of the types of information, e.g., advice, referral, shared in different online formats including the discussion forums of support groups [22]. Humphreys & Kaskutas, explored the idea that "As members become committed to mutual help organizations, many of them absorb some or all of the organizations' core beliefs" ([23], p231) and that these can act as what Antze called a "cognitive antidote" to the person's problems, helping them feel better by altering their interpretation of problem drinking and therefore their beliefs about themselves and their problem. Antze even stated that 'peer therapy groups' (he counted AA in this number) were "especially well adapted" ([24] p326), to changing members' views in line with their beliefs.

Humphreys & Kaskutas [23] compared the world views transmitted by two 12-step groups and Women For Sobriety, which has a very different approach to problem drinking, finding some support for the cognitive antidote theory, although they make the important point that not all members want to change world view, accessing the group primarily for its social aspects. To date, no research appears to have been carried out that aims to understand information seeking in AOSGs through the lens of Bates' berrypicking model: our research seeks to address this gap in the literature.

3 Methods

Five non-12-step AOSGs (Groups A – E) which varied in size, location and beliefs about problem drinking and how to treat it, were recruited from a list of groups developed by the researcher from extensive Google, Bing and Yahoo searches. All met the criteria that they were aimed at adults with alcohol problems, in English, included discussion forums and did not follow the 12-step approach. Groups were recruited via contact with their owners or administrators who gave consent and assisted in alerting

their members to the study. Users then self-selected, contacting the researcher by email. Semi-structured interviews were held with 25 such users: these were predominantly female, middle aged, white and highly educated. The interviews were conducted by phone or via skype apart from one held in person and one undertaken via email at the user's request. Interviews were held between October 2017 and February 2018, and lasted between 60 and 114 minutes. Data was coded in NVivo 11 using a mixture of data driven codes and a priori ones derived from the literature and the previous arm of the study, in which forum messages from three AOSGs had been analysed. Themes were then developed using Braun & Clarke's approach to thematic analysis [25]. The following account of the findings is structured in line with the four aspects of berrypicking noted above. Ethical approval was obtained from the University of Sheffield prior to data collection. Users gave informed consent prior to the interviews and all names were anonymised.

4 Findings

4.1 The Query

In berrypicking the nature of the query does not remain static. As Bates suggested:

“In real-life searches in manual sources, end users may begin with just one feature of a broader topic, or just one relevant reference, and move through a variety of sources. Each new piece of information they encounter gives them new ideas and directions to follow and, consequently, a new conception of the query...the query itself (as well as the search terms used) is continually shifting, in part or whole.”
([9] p410)

Initially, the AOSG users began their journeys with the groups in one of three ways. They may have started by searching for information and help around the topic of ‘How do I deal with my drinking?’ Anna (Group A), for example, googled ‘alcohol help’, Marianne (Group C) googled ‘alternative treatments’, and Robert (Group E) ‘alcohol recovery forums’. Bethany (Group B) googled for ways to taper and Joe (Group D) for online programs that were not AA. Secondly, they may have been referred to the group, although not necessarily at their request: Joanne (Group E), for example, was referred by her hospital nurse. Thirdly, they may have heard of the group serendipitously, via other media or when searching for something unrelated. For example, Jackie read about Group D in a popular magazine, Dawn (Group D) found it mentioned in something unrelated that she was looking at online, Alan (Group B) heard about his group on the radio and Cara (Group E) found hers via a newspaper article. The path from reference to group might be straightforward or circuitous: Julie (Group C), for instance, googled an alternative therapy and accidentally found a DVD about a particular treatment for problem drinking. She then found a website about the treatment and from this linked to Group C whose forums she uses. Users may immediately access their group on hearing of it or put the information aside and come back to it later (e.g., Megan & Cara of Group E). Whilst some might

have previous good experience of online support groups, which would incline them to look at AOSGs (e.g., Dawn and Jackie of Group D), most did not have this.

Users were attracted to their group for a variety of reasons, for example, functionality (Jackie, Group D), getting responses to their initial post quickly (Anna, Group A), the compassion and support available (Christine, Group D). General group approaches, if not specific ideas, were important to many, particularly whether or not they followed the AA/12-step approach: Joe and Cathy (Group C), Anna (Group A), Bethany (Group B), Jackie (Group D), Isabelle and many others from Group E all mentioned this. Others were drawn to a group because of the particular treatment it endorsed (particularly members of Group C which exists to promote and assist with use of a specific treatment, e.g., Marianne, Ben, Julie) or because the group was supportive of the general approach they wanted to take e.g., moderate drinking (e.g., Dawn, Group D). Alan does not mention being drawn to Group B because of its support for moderate drinking, but does say that he is now backing away from it as it clashes with his current approach:

“I found that moderation is not a solution for me, and that reading stories and helping people maintain moderation made me think that I could or should do moderation as well and I simply don’t have that willpower and can’t....So I’ve backed away from the site because of that.”

A common reason for attraction was encountering other people like themselves for the first time. They could identify with existing members, see their own story in those told, and therefore felt less isolated and unique. The group helped them to realize that drink problems are common and there is a way out of them: members from all five groups emphasized the importance of this. The following was typical:

“I think the first thing that drew me in were the personal stories...and realizing how stark they were and how much they had mirrored some of my own experience and some family experiences” (Tina, Group E)

The general query ‘How do I deal with my drinking?’ ‘evolved’ as Bates described it, as members’ experience and use of the forums progress. A common pattern was increased specificity as the person moved on to questions about how to deal with practical, difficult situations that arise on the journey, such as how to cope with holidays such as Christmas (Grace, Group E), dealing with an upcoming event where they will be encouraged to drink (Isabelle and Theresa, Group E, Anna Group A), and how to cope with specific activities like attending a concert sober for the first time (Cara, Group E). Over the longer term there was typically a move from seeking information to giving it, as information needs were satisfied and helping others became more important:

“And so now I have this pay-it-forward mentality that because those people posted for me and I was able to read about their successes, now it’s time for me to post about my past and my successes and maybe it’ll find somebody else that’s strug-

gling and, and they can be encouraged by what has happened to me.” (Ben, Group C)

The understanding of what it is to be a problem drinker also evolved over time from a negative to a positive image:

“[it] helps you to just feel sort of normal and quite proud of what you're doing [stopping drinking]. Instead of like, the skulking weirdo with the drink problem” (Isabelle, Group E)

4.2 The Information 'Domain'

Bates stated that a berrypicker typically: “searches in a much wider variety of sources” ([9], p414) than traditional searchers. Individuals were likely to arrive at their group with some existing ideas about problem drinking received from multiple sources of very different types over their lifetime, including individuals (e.g. family members, peer group members), the cultural attitudes of the society they grew up in or had lived in, previous reading about drinking, treatment services or groups attended and media such as cinema and TV.

“a big misconception right now is that one needs to be drunk to have fun. Media and real-life role models portray this every day. If a person grows up learning this as a fact of life, even experiencing it themselves, it will be very difficult to un-learn it.” (Joe, Group D)

In the online groups themselves there were different information areas that they could access: for example, information pages presenting the official ideas of the site owners/administrators; forums, chat rooms or blogs carrying those expressed by members themselves. The information pages were typically used more at the start of members' time on the forums: Christine, for example, “squirrell[ed] away everything” when new to Group D, including the information pages.

Ideas expressed on the information pages were not necessarily endorsed by the members (for example, few participants from Group A seemed to adopt its stated belief that Cognitive Behavioral Therapy is the way to treat problem drinking). Equally members' beliefs did not necessarily correspond with each other, exposing the user to different perspectives. This was seen as an advantage:

“I think that is one of the real strengths of [Group A] that you can have a whole range of opinions, and a whole range of approaches” (Anna)

Most users also found and pursued references on the site which led them out to information elsewhere, for example in articles, books (known in at least one group as ‘Quit Lit’) and less frequently other formats such as film or YouTube videos.

In summary, the information ‘domain’ for people interested in problem drinking was very wide ranging, including information provided by administrators and owners

on the site, the ideas expressed by different members in the forums and other interactive parts of the site, traditional types of information resources such as articles and books, and non-traditional media. People were likely to acquire information before they arrived at the site, whilst they were on it, and when they moved away from the site to other sources.

4.3 Selecting Information

Bates described the selection of information as not the production of one set of resources from a perfected search query, but as:

“A bit-at-a-time retrieval.... called berry-picking. This term is used by analogy to picking huckleberries or blueberries in the forest. The berries are scattered on the bushes; they do not come in bunches” [9, p410].

Most of the interviewees described acquiring their ideas in a way that fits Bates’ model well. The following was very typical of what interviewees reported:

“Yeah, it really [was] a mix of multiple sources and information for me to change the way that I think about alcohol. [As well as experience within the family] it was a mix of educational sources from the people that I met and, and my intensive out-patient program from rehab, from AA sources, from reading books, from *Rational Recovery*, I read that book, you know reading the AA literature and books and getting educated on the forums....I’ve learned a ton” (Alan, Group B)

Some of these resources influenced Alan before he accessed the group (e.g., his family, the rehabilitation program attended), but he also learned from Group B and from AA which he was attending at the same time. The philosophy of AA is very clear and well established, set out in *‘Alcoholics Anonymous’*, commonly known as the *Big Book* of AA, focusing around the 12-step program for recovery, service and attendance at meetings. Its attitude to problem drinking, i.e., that it requires absolute abstinence, conflicts directly with the approach of Group B, which favors the individual making their own choice of abstinence, reduced or moderate drinking, and provides information and advice about the latter. This appeared to occur frequently, for example, Erin accessed groups with differing beliefs (AA and Group E) and Robert spent over a year in a forum where he did not agree with the approach, only leaving it due to harassment from some other members. The conflict of approaches on its own did not appear to cause them problems, they selected or ‘berrypicked’ the parts that they liked:

“There were always people who you were like-minded with, and I could always take the attitude of, you know I’ll hang onto that and forget about the rest.” (Robert, Group E)

This was reiterated frequently, for example:

“I take a bit of everything” (Bethany, Group B)

“you just choose what you listen to” (Julie, Group C)

“I took in all the information...I immersed myself in it, but then what I'd do is I sieved it...and I hold on to what connects to my reality, and so what I came up with is just my reality...I get all the information but then I make up my own mind.” (Theresa, Group E)

This approach to difference was used within the group as well. Isabelle described disagreement in the forums and added:

“I think pretty much everybody does accept that it's all a very, very personal journey. And what might be 100 percent true for one person won't be at all true for another person. So you kind of just read everything and then pick out what speaks to you really” (Isabelle, Group E)

To extend the berrypicking metaphor, this presents a picture of individuals drawing not just on separate blueberry bushes, but on a variety of different types of berries and merging them into their own unique interpretation, which is self-developed rather than following a set recipe.

4.4 Search Techniques

Bates stated that effective berrypickers will use many different search techniques in order to find what they need. They may use different techniques at the same time or they may move from one strategy to another over time. The group users demonstrated a number of different ways of searching for information. For example, they asked specific questions and received answers, requested feedback on plans or ideas, followed up a wide range of references, and/or sometimes engaged in debate, and discussed or argued with each other, working their ideas out through this. They browsed the site for interesting topics (e.g., Julie, Group C Christine Group D, Alan Group B, Robert, Group E), looked for recent posts (e.g., Joe Group C, Ariana Group E), for replies to their own posts (e.g., Julie Group C) and/or they habitually used one or more specific threads or areas of the site, always checking this when they went online (e.g., Anna Group A, Cathy Group C, Bethany and Alan Group B, Theresa, Grace, and Isabelle Group E). They also searched by types of material, for example, seeking out stories and anecdotes from people's experiences (e.g., Julie Group C, Yvonne and Ariana Group E). Frequently, they searched for people rather than topics or types of threads. This might be newcomers in order to help them (e.g., Anna, Group A) or people who were at the same stage as them and with whom they could exchange ideas and support:

“you’re looking to identify with somebody, so I suppose you trawl through looking for the people who are like you” (Erin, Group E)

“I also bookmark people that I like, their writing style that are at the same stage as me. So there’ll be other people that, you know, stopped about the same time, so we’re going through the same sort of things.” (Megan, Group E)

They may look for users who write well, for thought leaders or role models to learn from (e.g., Julie Group C; Robert, Megan and Isabelle Group E).

5 Discussion

Problem drinking remains a major issue with high costs to society, families and individuals, including in terms of economic cost, crime, domestic violence, lost work productivity and family breakdown [26]. AOSGs provide support and information for problem drinkers, offering easier access for many than face-to-face groups. Limited research has been undertaken into the information seeking behavior of AOSG users, particularly as regards non-12-step groups. This article has explored the role of these groups in the process of developing beliefs about problem drinking, using the lens of Bates’ berrypicking model of information seeking. There does not appear to be any existing research into these groups using Bates’ model, which this article shows to be helpful and appropriate for understanding the information seeking processes at work.

The findings show that users’ interviewed for this study followed a process closer to the berrypicking model than the traditional linear model of one query resulting in one perfected set of references. In line with Bates’ model, users queries changed with their time on the forums, they used different information ‘domains’ and a variety of information seeking techniques. Most significantly they did not find conflicting ideas disturbing and were not necessarily discouraged from using the forums even if the majority view was at odds with their own ideas. Instead they berrypicked: taking what resonated as true to them and leaving what did not. The exception to this is that the overall approach of the group was important to the majority, specifically that it either followed a different approach to AA (which they rejected), or supported the general direction in which they wanted to go, e.g., moderate drinking rather than abstinence. This work contributes to the existing literature, [e.g., 5-6], about the need to match individuals and treatment approaches taking account of users’ beliefs. It showed that overall approach was important here, influencing choice of a group, but at a high level: 12-step or non-12-step. Within those two envelopes individuals formed their own more detailed beliefs, berrypicking from a variety of sources. Further research is needed to determine whether these findings extend to other groups.

Antze’s argument that online support groups have ideologies which they teach their members to endorse and adopt wholesale does not appear to be supported in relation to non-12-step groups. He stated that:

“Each [self-help group] claims a certain wisdom concerning the problem it treats. Each has a specialized system of teachings that members venerate as the secret of recovery...as far as members themselves are concerned, a group’s teachings are its very essence” ([24] p324)

Whilst the groups studied here did hold ideas as to how a person might understand problem drinking and recover from it, Antze’s view is not supported. Members are not obliged to follow the beliefs set out in the site’s information pages, nor are they required to agree with each other. This allows a context in which berrypicking can take place. The findings instead support Finfgeld’s work on Moderation Management, a non-12-step AOSG:

“Although MM offers guidelines for changing problem drinking habits, it is important to emphasize that the listserv members in this study did not limit themselves to this approach. Instead, they exposed themselves to a variety of therapeutic philosophies and paradigms and chose what appeared to work best for them.” ([27], p37)

The present study extends this finding to other non-12-step AOSGs, as well as analyzing the information seeking practices by which it is enacted, which has not been researched before.

5.1 Limitations of the Study

The sample studied was self-selected and its demographics indicated that almost all interviewees had high levels of education, continuing their education post school. It is possible that this cohort has more confidence in selecting and assessing information and therefore felt more at ease with rejecting group beliefs that did not appear true to them. However, high levels of education amongst study participants have been noted in several studies of users of non-12-step alcohol support groups, e.g., [7, 28]. It is possible that the interviewees studied here are in fact representative of active users of these groups.

6 Conclusion

This paper has shown that the process of developing beliefs/ideas about problem drinking using the discussion forums of AOSGs can be seen as a berrypicking one, whereby the query changes over time and multiple sources and search techniques are used to develop ideas. The interviewees who participated in this study largely self-defined their beliefs, taking what resonated with them from different sources and forming their own understanding of problem drinking.

References

1. Leventhal, H., Nerenz, D.R., Steele, D.J.: Illness representations and coping with health threats. In: Baum, A., Taylor, S.E., Singer, J.E. (Eds.): *Handbook of Psychology and Health, Vol IV, Social Psychological Aspects of Health*, 219-252. Lawrence Erlbaum Associates, New Jersey, USA & London, UK (1984)
2. Leventhal, H., Diefenbach, M., Leventhal, E.A.: Illness Cognition: using common Sense to understand treatment adherence and affect cognition interactions. *Cognitive Therapy and Research*, **16**(2), 143-163 (1992)
3. Hagger, M.S., Orbell, S.: A meta-analytic review of the Common-Sense Model of Illness Representations. *Psychology & Health* **18**(2), 141-184 (2003)
4. Petrie, K.J., Jago, L.A., Devcich, D.A.: The role of illness perceptions in patients with medical conditions. *Current Opinions in Psychiatry* **20**, 163–167 (2007)
5. Society for the Study of Addiction to Alcohol and Other Drugs.: Comments on Project Match: matching alcohol treatments to client heterogeneity. *Addiction* **94**(1), 31-69 (1999).
6. Atkins, R.G., Hawdon, J. E.: Religiosity and participation in mutual-aid support groups for addiction. *Journal of Substance Abuse Treatment* **33**(3), 321-331 (2007)
7. Zemore, S.E., Kaskutas, L.A., Mericle, A., Hemberg, J.: Comparison of 12-step groups to mutual help alternatives for AUD in a large, national study: differences in membership characteristics and group participation, cohesion, and satisfaction. *Journal of Substance Abuse Treatment* **73**, 16-26 (2017)
8. Alcoholics Anonymous.: The twelve steps of AA, <https://www.alcoholics-anonymous.org.uk/about-aa/the-12-steps-of-aa>, downloaded 03/12/18
9. Bates, M.J.: The design of browsing and berrypicking techniques for the online search interface. *Online Review* **13**(5), 407-424 (1989)
10. American Psychiatric Association: *Diagnostic and Statistical Manual of Mental Disorders (DSM–5)*, 5th edn. American Psychiatric Association, Arlington USA (2013)
11. Ford, N.: *Introduction to information behaviour*. Facet Publishing, London (2015)
12. Lueg, C.P., Bidwell, N.J.: Berrypicking in the real world: a wayfinding perspective on information behavior research. In: *Proceedings of the American Society for Information Science and Technology* **42**(1), (2005)
13. Kumpulainen, S.: Trails across the heterogeneous information environment: manual integration patterns of search systems in molecular medicine. *Journal of Documentation* **70**(5), 856-877 (2014)
14. Burnett, G., Besant, M., Chatman, E. A.: Small worlds: normative behavior in virtual communities and feminist bookselling. *Journal of the American Society for Information Science and Technology* **52**(7), 536-547 (2001)
15. Kazmer, M.M., Lustria, M.L.A., Cortese, J., Burnett, G., Kim, J-H., Ma, J., Frost, J.: Distributed Knowledge in an Online Patient Support Community: Authority and Discovery, *Journal of the Association for Information Science and Technology* **65**(7), 1319–1334, 2014
16. Cain, C.: Personal stories in Alcoholics Anonymous. In: Holland, D., Lachicotte Jr, W., Skinner, D., Cain, C.: *Identity and agency in cultural worlds*, 66-97. Harvard University Press, Massachusetts, USA (1998)
17. Cain, C.: Personal stories: identity acquisition and self-understanding in Alcoholics Anonymous. *Ethos* **19**(2), 210-253 (1991)
18. Lave, J., Wenger, E.: *Situated learning: legitimate peripheral participation*. Cambridge University Press, Cambridge UK (1991)

19. Swora, M.G.: Commemoration and the healing of memories in Alcoholics Anonymous. *Ethos* **29**(1), 58-77 (2001)
20. Coulson, N.S.: Sharing, supporting and sobriety: a qualitative analysis of messages posted to alcohol-related online discussion forums in the United Kingdom. *Journal of Substance Use* **19**(1–2), 176–180 (2014)
21. Cunningham, J.A.: Comparison of two internet-based interventions for problem drinkers: randomized controlled trial. *Journal of Medical Internet Research* **14**(4), e107 (2012)
22. Chuang, K., Yang, C.C.: Informational support exchanges using different computer mediated communication formats in a social media alcoholism community. *Journal of the Association for Information Science and Technology* **65**(1), 37–52 (2014)
23. Humphreys, K., Kaskutas, L.A.: World views of Alcoholics Anonymous, Women for Sobriety, and Adult Children of Alcoholics/Al-Anon mutual help groups. *Addiction Research* **3**(3), 231-243 (1995)
24. Antze, P.: The role of ideologies in peer psychotherapy organizations: some theoretical considerations and three case studies. *The Journal of Applied Behavioral Science* **12**(3), 323-346 (1976)
25. Braun, V., Clarke, V.: Using thematic analysis in psychology. *Qualitative Research in Psychology* **3**(2), 77-101 (2006)
26. Public Health England: Alcohol: applying All Our Health, <https://www.gov.uk/government/publications/alcohol-applying-all-our-health/alcohol-applying-all-our-health>. Updated 7 February 2018, last accessed 2018/9/07
27. Finfgeld, D.: Resolving alcohol problems using an online self-help approach: Moderation Management. *Journal of Psychosocial Nursing and Mental Health Services* **38**(2), 32–38 (2000)
28. Sinclair, J.M.A., Chambers, S.E., Manson, C.C.: Internet support for dealing with problematic alcohol use: a survey of the Soberistas online community. *Alcohol and Alcoholism* **52**(2), 220-226 (2016)