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A study examining depression and bipolar support alliance online peer support groups

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A STUDY EXAMINING DEPRESSION AND BIPOLAR SUPPORT ALLIANCE ONLINE

PEER SUPPORT GROUPS

A clinical dissertation submitted in partial satisfaction

of the requirements for the degree of

Doctor of Psychology

by

Jeannette Torres

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Natasha Thapar-Olmos, Ph.D. - Dissertation Chairperson

This clinical dissertation, written by

Jeannette Torres

under the guidance of a Faculty Committee and approved by its members, has been submitted to and accepted by the Graduate Faculty in partial fulfillment of the requirements for the degree of

DOCTOR OF PSYCHOLOGY

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ACKNOWLEDGMENTS

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EDUCATION

Clinical Psychology- Psy.D. (Anticipated 2021)
Pepperdine University, Graduate School of Education and Psychology (*APA Accredited Program*)
Dissertation Lab: Recovery and Evidence-Based Practice Lab
Dissertation Chair: Natasha Thapar-Olmos, Ph.D.
Dissertation Committee: Anat Cohen, Ph.D. & LaTonya Wood, Ph.D.

Clinical Psychology – M.A. (December 2015)
California State University Northridge (CSUN)

Psychology – B.A. (May 2010)
California State University Los Angeles (CSULA)

A.A. (December 2007)
Pasadena City College (PCC)

Language Skills:
- Spanish: Fluent speaking, reading, and writing. Provide psychotherapy and conduct assessment measures for monolingual and bilingual clients.

CLINICAL TRAINING EXPERIENCE

UCLA- Cultural Neuropsychology Program, Los Angeles, CA
Neuropsychology Extern, Supervisors Xavier Cagigas, Ph.D. & Paola Suarez, Ph.D.
(September 2019-August 2020)
- Administer and score English/Spanish neuropsychological assessment measures of culturally/ethnically diverse individuals across the lifespan in an outpatient setting
- Attend weekly individual and group supervision to review assessment results and further enhance conceptualization of clients' presenting problems, diagnoses, and culturally-relevant treatment recommendations
- Attend didactics in neuropsychology and test administration/scoring trainings (i.e., pediatric measures) to increase knowledge and build competence-based assessment skills
- Conduct comprehensive medical record review through CareConnect system in order to complete a pre-evaluation in preparation for patient's visit

VA Greater Los Angeles Healthcare System- Ambulatory Care Center, Los Angeles, CA
Psychology Pre-intern, Supervisor Kimberly Newsom Ph.D.
(August 2019-August 2020)
- Co-facilitate Cognitive Behavioral Therapy (CBT) group for anxiety and depression with a diverse Veteran population
- Co-facilitate group therapy for depression management with a diverse Veteran population

- Provide individual CBT for a diverse Veteran population who present with various mental health issues (e.g. PTSD, mood disorders, anxiety)
- Provide Cognitive Processing Therapy (CPT) for an individual patient
- Participate in weekly case conference to discuss patient diagnosis and treatment plans
- Attended six hour Dialectical Behavior Therapy (DBT) seminar
- Attended weekly Acceptance Commitment Therapy (ACT) seminar and intermittently lead mindfulness exercise
- Attend weekly didactic seminars on various topics (i.e., diversity, supervision, clinical interviewing)

UCLA- Advanced Medical Psychology Assessment Clinic, Los Angeles, CA
Psychology Extern, Supervisor Patricia Walshaw, Ph.D., ABPP-CN
(July 2019-July 2020)
- Conduct neuropsychological evaluations for the Veteran population through the Operation Mend Program as well as for patients with a variety of medical conditions with neuropsychological sequelae (e.g., epilepsy, lupus)
- Conduct comprehensive medical record review through CareConnect system or records received from the Veteran's Affairs (VA) in order to complete a pre-evaluation in preparation for patient's visit
- Trained in administering neuropsychological tests through iPad

UCLA – Mary S. Easton Center for Alzheimer's Disease Research, Los Angeles, CA
Psychology Extern, David Geffen School of Medicine, Supervisor Shital Pavawalla, Ph.D., ABPP-CN (June 2018 – June 2019)
- Administer and score neuropsychological assessment measures of adults in an outpatient setting
- Responsible for preparing integrated neuropsychological assessment reports, that summarize integrated findings, DSM-5 diagnostic formulation, and recommendations
- Conduct medical record review through CareConnect system and complete comprehensive pre-evaluation in preparation for patient's visit
- Participate in weekly group supervision
- Attend weekly didactic seminars on topics related to fields of neuropsychology, psychiatry, neurology, and general medicine (e.g., dementia, HIV, concussion, etc.)
- Attend brain cutting seminar to expand knowledge of neuroanatomy and neurological syndromes

Olive View - UCLA Medical Center, Sylmar, CA
Psychology Extern, Neuropsychology Service, Supervisors J. Brandon Birath, Ph.D. and Xavier Salazar, PsyD (September 2017 - July 2018)
- Administer and score English/Spanish neuropsychological assessment measures of culturally/ethnically diverse adults in both an inpatient and outpatient setting
- Conduct comprehensive intake interviews in English/Spanish
- Responsible for preparing integrated neuropsychological assessment reports, that summarize integrated findings, DSM-5 diagnostic formulation, and recommendations

- Conduct comprehensive medical record review through Orchid system
- Participate in weekly group supervision
- Attend weekly didactic seminars on topics related to fields of neuropsychology, psychiatry, and general medicine
- Interact with psychiatric inpatient population, while assisting with token economy system
- Assisted with group on problem-solving for psychiatric inpatient population
- Developed and presented didactic on Vascular Dementia

Pepperdine Community Counseling Center (PCCC), Encino, CA
Psy.D. Trainee, Supervisor Anat Cohen Ph.D. (September 2016 – August 2019)
- Provide outpatient bilingual (Spanish/English) psychotherapy for diverse populations who present with various mental health issues (e.g. trauma, mood disorders, anxiety, and general life distress)
- Utilize standardized assessment measures to inform therapy and assess progress toward treatment goals [i.e., *Patient Health Questionnaire (PHQ-9), Outcome Questionnaire-45.2, and the Working Alliance Inventory-Short Version (WAI-S)]*
- Conduct comprehensive intake interviews, develop case conceptualization, create and implement evidenced-based treatment plans to fit client needs
- Participate in weekly dyad and group supervision, to inform therapy and enhance competence
- Co-developed and co-presented curriculum for two presentations (i.e., mindful parenting and middle school anxiety) of parents of schools in the community

Parent Child Interaction Clinic, CSUN, Northridge, CA
Student Clinical Director (2013-2014) *Intern* (2011-2013)
Supervisor Dee Shepherd-Look, Ph.D.
- Collaborated with clinical director in overseeing, training, and providing feedback for graduate level students
- Trained staff, advertised services, and contacted potential clients
- Created and taught educational modules for foster parents and legally mandated parents
- Provided active and goal-oriented childcare based on behavioral principles and assessment of child's needs
- Tailored psychoeducational modules to fit needs of specific populations (e.g., applied behavior analysis for parents of children with developmental disabilities, developmental levels, self-esteem, apathy, and empathy)

Los Angeles Mission College Foster Care and Kinship Program, Sylmar, CA
Parent Educator (2011-2013)
Supervisor Dee Shepherd-Look, Ph.D.
- Group leader and instructor for foster parents
- Developed workshops and presented on topics of resiliency and coping, child development, and parenting styles and behaviors
- Facilitated group discussions and led parents in activities, role-plays, and demonstrations

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SCHOLARSHIP

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Conference Presentations

Gallagher, C. J., **Torres, J**., Publico, S. B., Gracian, E.I., Sabb, F.W., & Bilder, R.M. (February 2020). *Bilingual word cost and neuropsychological correlates of non-verbal task-shifting.* Poster session presented at the International Neuropsychological Society, Denver, CO.

Torres, J., Williamson, J., & Thapar-Olmos, N. (May, 2018). *Exploring the effectiveness of depression and bipolar support alliance (DBSA) online peer support groups.* Poster session presented at the California Psychological Association Convention, La Jolla, CA.

Torres, J., Corral L., Ayala, I., Bahner, A., & Tonyan, H. (March, 2015). *The complexity of family child care homes as a setting for child Development*. Poster session presented at the biennial meeting of the Society for Research in Child Development, Philadelphia, PA.

Stoessel, N., Hinde, S. **Torres, J**., Sanam, J., Jordan, K., & Plunkett, S.W. (October, 2013). *Perceived acceptance and rejection by mothers and fathers in relation to Middle Eastern adolescents' and emerging adults' self-esteem.* Poster session presented at annual meeting of the Society for the Study of Emerging Adulthood, Chicago, IL.

Publication

Tonyan, H.A., Nuttall, J., **Torres, J**., & Bridgewater, J., (2017). Engaging with quality improvement initiatives: A descriptive study of learning in the complex and dynamic context of everyday life for family child care providers. *Early Education and Development*, 28(6), 684-704

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RESEARCH EXPERIENCE

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Recovery and Evidence-Based Practice Lab, Pepperdine University, Los Angeles, CA
Graduate Student Researcher (January 2017-present)
Dissertation Chair: Natasha Thapar-Olmos, Ph.D.
- Responsible for co-developing survey to be distributed to participants of online peer support groups
- Conduct comprehensive review of literature

Are You In? Research Project, Psychology Department, CSUN, Northridge, CA
Project Manager (2014-2016), *Research Assistant* (2014)
Supervisor/Principal Investigator Holli Tonyan, Ph.D.
- Trained in conducting Ecocultural Family Interviews in Spanish and English
- Conducted qualitative case studies (make initial contact, build rapport, and conduct interviews [English/Spanish])
- Maintained detailed records of data collected (i.e. photos, audio recordings, field notes, interview summaries, and holistic ratings)
- Entered quantitative data in SPSS software, coded excerpts of qualitative data using

Dedoose software
- Organized and managed weekly lab meetings
- Tracked expenditures for grant funded project
- Assisted in hiring and training of new research assistants
- Assisted with the preparation of IRB applications, including protocol and informed consent and obtain approval for modification and renewal of study

TEACHING EXPERIENCE

California State University Northridge, Psychology Department, Northridge, CA
Graduate Teaching Assistant to Holli Tonyan Ph.D. (Spring 2015)
- Assisted with instruction of undergraduate students enrolled in Developmental Psychology
- Lead group discussions
- Facilitated study sessions for exams
- Proctored exams and graded papers

RELEVANT WORK EXPERIENCE

Crittenton Services for Children and Families, Fullerton, CA
Human Resources Assistant (2011-2014)
- Participated in HR section of new hire training and processed and cleared all new hires
- Substituted for Human Resources Director in all HR functions in absence of Director
- Maintained up-to-date personnel files and data computer records on all employees and interns
- Created and managed monthly reports in Excel and Reportsmith software
- Provided support to any staff or department heads in personnel disputes or employment problems
- Maintained current personnel policy handbook
- Created and maintained statistical information for quarterly human resources report for Board of Directors
- Assisted in HR special events (e.g., benefits fair, awards luncheon, and staff holiday party)
- Administered and scored Spanish bilingual proficiency tests
- Received training in Health Insurance Portability and Accountability Act (HIPPA)

CERTIFICATIONS

Montreal Cognitive Assessment (MoCA) (2021)
Trauma Focused Cognitive Behavioral Therapy (TF-CBT) Certificate (2017)
Human Participants Protection Education for Research Teams (2016) – *National Institutes of Health*
Mandated Reporting General (2014) – *California Department of Social Services*
Mandated Reporting Childcare Worker (2014) – *California Department of Social Services*
QPR Suicide Prevention Gatekeeper (2014) – *Los Angeles County Department of Mental Health*

COMMUNITY VOLUNTEER

One-on-one mentor for at-risk inner city youth (2010-2011), Foundation for Second Chances, Los Angeles, CA
Volunteer (2009) – Maryvale Residential Treatment for Girls, Rosemead, CA

ABSTRACT

The current study examined the experiences of individuals who participated in one or more online peer support group (OPSG) sessions organized by Depression and Bipolar Support Alliance (DBSA) in order to elucidate whether participants experience higher levels of quality of life as associated with their participation in OPSG. Participants ranged in age from 18 to 79 and were primarily White/Caucasian and female. Participants completed a survey, which consisted of a demographics questionnaire and the Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form. Data were collected using Qualtrics and analyzed using SPSS. No statistical significance was found regarding differences in quality of life according to whether participants attended a DBSA group in the past two months. However, results indicated that participants who were married or in a committed relationship indicated a significantly higher quality of life score ($F(4, 91) = 3.89$, $p = .006$) than other groups. The results of the present study were inconsistent with the current literature, which suggests a link between quality of life and participation in peer support. Additional unmeasured variables may have contributed to a null finding. In conclusion, results indicate that online peer support groups, specifically DBSA Online Peer Support Groups, may be unrelated quality of life.

Introduction

The use of technology for providing services is a growing area in the mental health field as it offers access to support for individuals who would otherwise not have access to mental health services. For many, the Internet is often the first place one goes to for help with a multitude of issues - according to a study conducted by Brunette et al. (2017), more than three quarters (78.5%) of respondents had gone online to seek information in the past year, and nearly half (49%) of respondents were interested in learning about online forums that would provide information and peer support for mental health issues. Research has shown that participation in online psychological services often serves as a stepping stone in the broader therapeutic context (Alleman, 2002). Thus, in the search for help online, individuals may learn about peer support groups through various resources such as message boards or forums (Mehta & Atreja, 2015). Through the use of the Internet, individuals with mental illness can identify similar others and aim to gain support anonymously (Naslund et al., 2016). Considering that individuals with mental illness often find it difficult to reach out for help, some of the unique advantages of online support groups are the varying methods in which they could be accessed. Asynchronous and synchronous groups offer flexibility and convenience where group members are not bound by time and can remain anonymous (Diefenbeck et al., 2014). Furthermore, although online support groups can differ in group dynamics and topics, they are similar in that they emphasize self-advocacy and taking an active role in one's own treatment decisions (Markowitz, 2015).

Peer support groups are frequently used as an adjunct treatment service for a variety of mental health conditions, such as depression, anxiety, obsessive-compulsive disorder, hypochondria, mood disorders, eating disorders, somatoform disorders, and social anxiety. There is limited information on the effectiveness of online peer support groups as a stand-alone treatment in

reducing psychological distress due to mental health disorders. However, support groups are believed to provide knowledge and social support that help stigmatized individuals find acceptance; which is essential in making cognitive changes that can improve overall functioning and quality of life (Markowitz, 2015). Likewise, many individuals find peer support groups as a helpful tool to manage symptoms, isolation, and loneliness as well as aid in their recovery. There are a variety of organizations that offer and facilitate online support groups for consumers. These organizations include but are not limited to non-profit organizations that advocate particular models and organizations designed to treat specific physical and mental health conditions (Mental Health America, 2018).

Types of Groups

Online support groups can be categorized into two main formats, asynchronous and synchronous. Asynchronous refers to online communication that occurs privately or publicly, usually through written text, at an individual's leisure (Lewallen et al., 2014; Mehta & Atreja, 2015). Synchronous refers to communication that occurs in real-time, typically through the use of a webcam (Diefenbeck et al., 2014; Perle & Nierenberg, 2013). Both formats may be implemented in a way that allows participants to be anonymous, which is a unique aspect of online peer support that cannot be replicated in person. In comparing asynchronous and synchronous formats, asynchronous groups are considered convenient and flexible and not temporally bound; thus, people can drop in and out at any time when desired (Diefenbeck et al., 2014). Some have suggested that asynchronous groups could potentially produce more thoughtful exchanges than synchronous groups because participants may be inclined to reflect before posting messages and to prepare for others' responses as well (Diefenbeck et al., 2014; Gliddon et al., 2015).

Furthermore, individuals post to message boards/forums on a variety of topics, and participants can choose which subjects to reply to. Asynchronous groups also tend to lack pressure on individuals to produce immediate responses (Gliddon et al., 2015). One limitation of the asynchronous format is that it does not allow for real-time interaction. However, more research should be conducted to determine the precise impact of this feature on the quality of support received in asynchronous online support groups.

Synchronous groups, on the other hand, differ in that participants interact in real-time (Diefenbeck et al., 2014), and there is typically a facilitator leading the group. These types of groups may be open or closed (i.e., drop-in basis at a regularly set date and time or the same group of individuals on a consistent basis). Synchronous online support groups are similar to in-person groups in that there might be an adjustment period for individuals to become acquainted and comfortable sharing. They can be helpful because they can produce a sense of group cohesiveness and provide immediate social support to participants (Lewallen et al., 2014). However, it should also be noted that the immediate support may not always be readily available as some participants may act as observers and may not always have something to share. Synchronous groups can also provide some flexibility because participants can choose when and how to participate in the group. Though both formats are used today for online peer support, asynchronous groups were primarily utilized at the inception of online support groups and are more prevalent (Mehta & Atreja, 2015).

Though the format of online support groups may vary by organization, the overarching purpose of these groups is for various individuals with a shared goal to come together and seek help or support from others who may have similar experiences (Mehta & Atreja, 2015). Multiple studies have found that this shared online experience can produce a "disinhibition effect" which

refers to a heightened sense of intimacy, or an individual's propensity to open up more freely than one would in face-to-face contact (Alleman, 2002; Gliddon et al., 2015; Suler, 2004). Similarly, participants of both synchronous and asynchronous groups typically use pseudonyms and thus cannot be personally identified, which is thought to lead to "dissociative anonymity," or "an online psyche, separate from their day to day self," which then contributes to the "online disinhibition effect" (Gliddon et al., 2015, p. 3). Additionally, individuals can be free to participate at their leisure, and therefore engage at different levels of involvement, particularly with discussion boards (i.e., asynchronous methods). For example, Gliddon et al. (2015) categorized the level of engagement in discussion boards as high, mid, or low. Those considered highly engaged participated actively and often contributed new content to the group, whereas those with low engagement remained passive users by merely reading through the boards. However, results were unclear as to what type (i.e., synchronous vs. asynchronous) and what level of involvement is necessary to truly benefit from this modality (Gliddon et al., 2015). In general, it is not clear if online forms of treatment can be a viable replacement to in-person treatment, and so the same question applies to online support groups (Diefenbeck et al., 2014). However, there is evidence to indicate that several therapeutic factors can be present even in non-professionally facilitated online groups (i.e., catharsis, group cohesiveness, and imparting information; Diefenbeck et al., 2014).

Methods for Examining Online Peer Support Groups

A range of qualitative and quantitative methods have been used to examine the effectiveness of online peer support groups. These include self-report questionnaires, face-to-face interviews, computer-based course evaluations, tasks conducted via discussion forums, and coding procedures by using constant comparative methods. In past research conducted,

researchers have examined the formation of identity (Proudfoot et al., 2012), the effect of moderators on support groups (Hsieh & Tsai, 2012), the development of facilitative strategies to increase student learning (Barak et al., 2008), the difference between online synchronous and offline, face-to-face collaboration (Siampou et al., 2014), and the effectiveness of the online peer support groups on group participants (Corrigan, 2016). Additionally, online peer support groups have become increasingly recognized as a legitimate therapeutic tool for people experiencing mental health difficulties, which can be evident by the increased number of organizations that are adding online support to their available services (Lawlor & Kirakowski, 2014). For example, several studies have detected consistent differences between peer support and non-peer support groups. Peer-delivered services have generated superior outcomes in terms of engagement of difficult-to-read clients, reduced rates of hospitalization and days spent in inpatient facilities, and decreased substance use among persons with co-occurring substance use disorders (Rowe et al., 2007). Likewise, the internet offers a cost-effective and accessible way of delivering mental health treatment programs through easy to access web platforms. It provides privacy and anonymity and a mechanism for minimizing stigma and embarrassment. However, web-based synchronous groups targeted explicitly for depression, and bipolar groups are few, and data reporting their efficacy are only just emerging (Proudfoot et al., 2012).

The methods of previous studies have included quantitative and qualitative designs aimed at gathering information regarding participation, quality of life, self-esteem, and self-efficacy, amongst other variables. Some of the strengths of previous research on OPSG include the ability to quickly assess each participant using online instruments, the ability to measure each participant at any given time point, and the ability to use self-report questionnaires and surveys. Consequently, the effectiveness of online support groups is difficult to assess not only for

methodological reasons (Davison et al., 2000) but also for its difficulties in measuring objective variables (Barak et al., 2008). Limitations of methods used to measure the effectiveness of online groups also include limited engagement by group members, difficulty measuring variables due to factors besides the independent variable that affects the dependent variable, confounding variables influencing outcome measures, the ambiguity of qualitative measures, and its conception of support in contrast to treatment (Barak et al., 2008).

Effectiveness of Online Support Groups on Mental Health Disorders

Most of the existing research on the effectiveness of online peer support focuses on individuals with medical conditions such as cancer (Lewallen et al., 2014) irritable bowel syndrome (Palant & Himmel, 2019; Park & Conway, 2017), as well as substance abuse and depression (Crisp & Griffiths, 2016; Griffiths et al., 2009; Griffiths et al., 2010; Wahle et al., 2017). Considering the unique features of different populations, findings of individual studies may not generalize to other populations with comorbid mood disorders, and other mental health conditions. Moreover, research on online peer support groups for adolescents and emerging adults is lacking (Ali et al., 2015). The quality of the evidence developed suggests that online peer-support groups aid in consumer's quality of life and in their ability to seek outside resources for help.

Various studies have indicated that online support groups are beneficial (Mehta & Atreja, 2015). Specifically, some of the benefits include an increase in social support, perceived reduction of stigma, and perceived improvement of quality of life (Crisp et al., 2014). Crisp et al. (2014) conducted a randomized control trial comparing online support group participation, which consisted of three psycho-education training programs for depression, comorbid disorders, and a control group, which indicated that online support groups focusing on depression have also been

associated with increased empowerment, self-esteem, and perceived quality of life. Though empowerment and self-esteem appeared to increase in the short-term, it was noted that an increase in quality of life was reported six months after completing an intervention and participating in an OPSG (Crisp et al., 2014). Further research has also demonstrated that online support groups can mimic professional therapy groups by implementing several therapeutic factors. Diefenbeck et al. (2014) found that these groups offered a sense of cohesiveness, catharsis, altruism, instillation of hope, existential factors, and interpersonal learning; thus indicating that participants can still benefit even if used as a stand-alone treatment. The limitations to the method/measures in previous studies include limited research on the effectiveness of online peer-support groups for individuals with comorbid mental health conditions. Thus, more information is needed in regards to expanding on the variables that may increase the effectiveness of online peer-support groups that may contribute to a better quality of life for consumers.

As such, an individuals' sense of quality of life should be further explored (Endicott et al., 1993; Gliddon et al., 2015; The WHOQOL group, 1998). Examining this particular variables will help to expand on the growing literature in this field, as well as provide further insight as to what is effective for individuals accessing online peer support groups.

Concept of Interest/Variables

The current study examines a key construct in the context of online peer support groups administered by DBSA: Quality of life, that was selected after a review of the literature focused on potential outcomes of engagement in online peer support groups.

Quality of Life

Quality of life can be considered a broad term that encompasses many areas of life and overall functioning. However, the overarching definition of the term refers to an individual's total sense of well-being, that is, how individuals assess or perceive their feelings within the context of their lives (Endicott et al., 1993; Gliddon et al., 2015; The WHOQOL group, 1998). Moreover, quality of life can also be viewed as an assessment of the various aspects of life. For example, this can include relationships, living environment, leisure activities, health, medical treatment, and overall perceived satisfaction with one's life (Endicott et al., 1993; Gliddon et al., 2015; Hope et al., 2009).

For individuals who have a mental illness, quality of life is an area in which they consistently report lower levels of satisfaction (Evans et al., 2006; Hope et al., 2009). Considering that individuals who have a mental illness do not necessarily get cured, measuring for quality of life satisfaction becomes a vital component in assessing an individual's overall sense of well-being, and hence their level of recovery (Hope et al., 2009). As such, instruments have been developed for measuring the overall perceptions of quality of life. Scales such as the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q; Endicott et al., 1993) and The World Health Organization Quality of Life assessment (WHOQOL; The WHOQOL group, 1998) take a clinical approach by assessing the individual's perceptions rather than evaluating objective levels of functioning and noting available resources (Endicott et al., 1993; The WHOQOL group, 1998). Though the WHOQOL was designed to address cross-cultural issues (The WHOQOL group, 1998); the Q-LES-Q has been considered one of the most widely used measures for assessing quality of life and has been translated to many languages (Endicott et al., 1993; Hope et al., 2009; Stevanovic, 2011).

In the context of mental health, individuals struggling with mental illness typically report diminished quality of life (Evans et al., 2006; Hope et al., 2009). Research has indicated that individuals participating in online peer support typically receive many benefits from their interactions, including improved quality of life (Crisp & Griffiths, 2016; Gliddon et al., 2015). As such, an individual's perception of their overall well-being is likely a more salient predictor of their overall life satisfaction, thus superseding the impact of the symptoms they may be experiencing (Crisp et al., 2014). Additionally, with respect to the current study, research has indicated that quality of life is an area of particular impairment for individuals struggling with bipolar disorder or depression, and thus can often be the focus of treatment (Gliddon et al., 2015). Therefore, looking at the impact of services and how it changes one's perception of well-being becomes important in further elucidating what serves in promoting overall wellness and life satisfaction. Given that telehealth is a growing area of medicine, further research should be conducted on examining the impact of online peer support groups as a stand-alone or adjunctive service.

Potential Negative Effects of Online Support Groups on Quality of Life

Though there is evidence to suggest that OPSG can have a positive impact on quality of life outcomes, there is potential for peer support to have an adverse effect. For one, depending on the type of group (i.e., synchronous vs. asynchronous) and method of facilitation, there is potential for groups to lack adequate facilitation. Thus, arising potential for negative or combative interactions with others, or arising distress due to ineffective management of triggering content (Griffiths, 2017). For example, Palant and Himmel (2019) conducted a qualitative study examining the effects of OPSG on quality of life with individuals involved in groups for irritable bowel syndrome. Though participants generally reported experiencing many

benefits from OPSG, there was evidence to suggest that users often have experiences that may be detrimental to their overall well-being. Interactions, such as unwanted confrontation and undesirable reactions such as pity, may cause an individual to feel stigmatized or instances of low mood (Palant & Himmel, 2019). As such, they postulated that these interactions might lead an individual to withdraw socially, which in turn can impact an individual's overall sense of well-being and thus their perceived quality of life (Palant & Himmel, 2019).

Purpose

The present study aimed to examine participants' self-reports of quality of life in association with participation in Depression and Bipolar Support Alliance (DBSA) online peer support groups. It was hypothesized that participants would report higher levels of quality of life as associated with their participation in OPSP. Causal associations between participation in online peer support groups and the primary outcome variables could not be examined due to the design of the study being cross-sectional and observational.

Methods and Procedures

The current study employed the use of an online survey, distributed by DBSA via email. A link to the survey was distributed to individuals who had participated in at least one online peer support group in the past. All study procedures were reviewed and approved by the Institutional Review Board of the university (See Appendix B). Individuals who chose to participate in the survey were presented with an information sheet and informed consent (See Appendix C), followed by the survey, which consisted of four parts (demographic questionnaire, outcome measures related to quality of life, empowerment, and recovery; See Appendices D and E). Data gathered from the third and fourth part of the survey are not included in this project.

Participants

Individuals were eligible to participate in the study if they were a member of the DBSA and have participated in the organization's online peer support groups. Participants ranged in age from 18-79 and were fluent in English. Minors were excluded from the sample due to the DBSA online support group being restricted to adults ages 18 and over. Therefore, the target population for this research study did not include minors. Additional exclusion criteria included non-English speaking individuals. Individuals were contacted via email by DBSA.

DBSA originated in 1985 and is an organization designed to provide peer support to individuals struggling with major depression and bipolar disorder, two most of the prevalent mental health conditions in the United States (www.dbsalliance.org). DBSA strives to adhere to its organizational values of community, inspiration, wisdom, and responsibility by providing opportunities for support and psychoeducation to members of their organization. DBSA assists individuals in improving quality of life and empowerment and advocates for the rights of individuals to choose their own emotional and physical wellness plan. DBSA services are

available to individuals twenty-four hours a day, either through in-person support groups or asynchronous online peer support groups. With over 650 extensive online support groups and print resources, DBSA reaches millions of individuals to gain empowerment and develop an improved quality of life.

Recruitment

Participants in the present study were recruited via email by DBSA. An informed consent was distributed along with the participation email where potential participants were informed that their voluntary participation in the present study was to measure the effectiveness of DBSA, to improve the online experience, and identify the unique value of an online support group. Participants were asked to complete an online questionnaire. To protect the privacy of study participants, participants were informed that at no point personal identifying information would be collected nor would their decision to opt out of the study reflect against them.

The researchers did not have direct access to potential participant email addresses and so the initial invitation to participate in this study was sent by a member of DBSA leadership. Demographic information such as age, race/ethnicity, gender identification, sexual orientation, marital status, employment status, source of income, and highest level of education completed were gathered, as was information regarding their diagnosis, and DBSA attendance within the last two months. It is not known exactly how many individuals received an invitation to participate in this survey, but the membership of DBSA is estimated to be 4,000. A total of 116 participants completed the survey, and of the respondents, five were excluded for not providing consent to participate and 18 were excluded for not completing the outcome measures of the survey. As such, a total of 93 respondents met all selection criteria and their data were included in the present study.

Demographic and Background Information

Data on participant demographic characteristics is provided in Table 1. Data on age were available for 72 participants, they ranged in age from 18 to 79, with a mean of 40.01 and standard deviation of 15.29. Approximately 83.9% of the sample were female, and the majority of participants reported their sexual orientation as heterosexual (72%). The majority of the sample (86.4%) reported at least some college as their level of education and 51.6% of participants reported being currently employed. Data regarding marital status were available for 92 participants. Approximately 31 (33.3%) participants reported they were single, 41 (44.1%) were either married or in a committed relationship, three (3.2%) were widowed, six (6.5%) were in a domestic partnership, and 11 (11.8%) were divorced or separated. Furthermore, approximately 50% of the participants reported living with a spouse or romantic partner (50.5%), with 22.6% reporting living with parents or other family members, 11.8% reporting living alone, 14% with roommates, and 1% living in a group home. Of the sample, 50% of the participants reported living in suburban geographical areas and living with comorbid disorders (51.6%) The ethnicity of the selected participants were as follows: 75% White/Caucasian, 4% Black, 5.4% Asian, 1.1% Middle Eastern, 2.2% Latinx, 6% Bi or Multiracial, and 4.3% Other.

Level of involvement with OPSG was also assessed by inquiring about frequency of participation in DBSA groups. As such, 50.5% of participants indicated that they had participated within the last two months. Likewise, 72% of participants indicated they were using adjunctive service in addition to DBSA online groups with 33.3% of participants indicating two or more adjunctive services in use.

Measures

Demographic Questionnaire

A demographic questionnaire was developed for the purpose of this study (See Appendix D). Information collected includes: age, race/ethnicity, gender identification, sexual orientation, marital status, employment status, source of income, and highest level of education completed. The current study will also gather information regarding participants' diagnosis, level of involvement and experiences with DBSA. For example, the survey will ask participants to rate their most recent experiences with DBSA online peer support groups on a three-point Likert scale (i.e., "not at all," "somewhat," and "very much). Specific statements include: "I felt supported by other members." "I felt listened to by other members." "The topics of the group members were relevant." "Others addressed issues I raised." "I felt comfortable raising topics to the group." "I felt a connection with other members." "I was satisfied with being part of the group." "I preferred using an alias versus my real identity in this support group." Additionally, the survey will inquire about when the participant last attended a DBSA online peer support group, when they began participating, and how frequently they participate. Lastly, participants are asked to report whether they are in recovery from drug or alcohol use, and whether the individual has been formally diagnosed with a mental illness; including listing of diagnoses with indication of those being treated.

Quality of Life Enjoyment and Satisfaction Questionnaire - Short form (Q-LES-Q-SF)

The Quality of Life Enjoyment and Satisfaction Questionnaire is one of the most widely used measures for assessing quality of life in a clinical research population (Endicott et al., 1993; Stevanovic, 2011). The original 93-item measure was developed to capture perceptions of satisfaction on an individual's quality of life; specifically areas of physical health, mood, leisure

activities, general activities, social relationships, and overall satisfaction with treatment and life (Endicott et al., 1993). Similarly, the Quality of Life Enjoyment and Satisfaction Questionnaire - Short form (Q-LES-Q-SF) was developed from the original measure as an efficient way of measuring the same constructs (Endicott et al., 1993; Stevanovic, 2011). The Q-LES-Q-SF is a 16-item, self-report measure, which inquires about an individual's level of satisfaction over the course of the past week (Endicott et al., 1993). The measure was derived from the general activities scale on the original questionnaire, and assesses for level of satisfaction in various areas such as, physical health/symptoms, mood, employment, household/leisure activities, family/social relationships, daily functioning, sexual interest, economic status, housing situation, and overall well-being (Endicott et al., 1993; Stevanovic, 2011). Participants are asked to rate each of these items on a five-point Likert type scale, from *strongly disagree* to *strongly agree* (Endicott et al., 1993). Raw scores are obtained by summing the scores of the first 14 items, and overall scores range from 14-70, with a higher number indicating greater overall satisfaction (Endicott et al., 1993; Stevanovic, 2011). Since the scale was developed, it has been translated to various languages, and numerous studies have been conducted testing the measures' reliability and validity (Endicott et al., 1993; Hope et al., 2009; Stevanovic, 2011). In their original article, Endicott et al. (1993) aimed to measure validity by comparing individual scales of the Q-LES-Q to other measures assessing for the same or similar constructs. Specifically, the general activities scale, which as mentioned above, was used to develop the Q-LES-Q-SF was compared to measures of depression and global improvement (Endicott et al., 1993). These included: Hamilton Rating Scale for Depression (HAM-D), Clinical Global Impressions (CGI) of Global Improvement, Symptom Checklist-90 (SCL-90), and the Beck Depression Inventory (BDI) (Endicott et al., 1993). Pearson's r correlations were conducted and demonstrated a strong

correlation between the general abilities scale and the HAM-D (-0.64), CGI of Global

Improvement (-0.50), SCL-90 (- 0.64), and the BDI (-0.67; Endicott et al., 1993).

Data Analysis

The analysis of data collected involved examining descriptive statistics on all measured

variables, as well as means for the primary outcome variable for the sample as a whole. The

hypothesis of the study was evaluated by examining differences in quality of life according to

self-reported recency of group attendance. While no specific hypotheses were made regarding

differences in the primary outcome variable according to the demographic variables measured,

we planned to conduct exploratory analyses on patterns of associations between diagnosis, age,

race, gender, and engagement in adjunctive services. Data were collected via Qualtrics and

analyzed using SPSS.

Participant email addresses were removed from the data file prior to analysis, and they

were provided to DBSA for coordination of the raffle incentive. There were a total of 116

responses at the start of the data cleaning. Responses that indicated "No" to consent ($n = 7$) or

"0" for the primary outcome measures ($n = 18$) were deleted from the data file prior to analysis.

The scope of missing data was minimal and therefore a mean imputation method was employed

by calculating the series mean for item-level scores. Data on the amount of times a participant

attended DBSA Online Support Groups in the past two months were recoded into a dichotomous

variable in order to allow for comparison of groups. Data on most of the demographic variables

was also re-coded in order to consolidate outliers into categories.

Calculation of the Q-LES-Q-SF Total Score

The range of possible Q-LES-Q-SF Total Scores is between 14-70. Per the scoring

instructions for this measure, both a total score and a percent maximum score were calculated

(Endicott et al., 1993). However, for the purposes of this study, only the total score was used as the two data points are equivalent in meaning.

Results

Frequencies and descriptive statistics were calculated for all demographic variables and

the outcome variable (see Table 1). To test the hypothesis of the study, an independent samples

t-test was conducted with groups defined as (a) Participants who attended a DBSA support group

in the past two months and (b) Participants who did not attend a DBSA support group in the past

two months. This was selected as the appropriate grouping approach because it resulted in

equivalent sub-groups in terms of sample size. Finally, differences in quality of life were

examined according to demographic characteristics as part of our post hoc exploratory analyses.

With regards to the hypothesis of this study, there were no statistically significant

differences in reported levels of quality of life according to participation in DBSA groups within

the past two months (see Table 2).

To examine if there were differences in reported quality of life according to participant

diagnosis, the reported diagnoses were categorized into six categories: Bipolar Disorder and

Related Disorders, Depressive Disorders and Related Disorders, Anxiety Disorders and Related

Disorders, Trauma and Stressor-Related Disorders, Comorbid Disorders, and No Diagnosis. A

between-subjects multivariate analysis of variance was conducted to examine if the diagnostic

groups differed on quality of life and the resulting differences were non-significant. Similarly,

no significant differences were found in reported quality of life with respect to participant age or

ethnicity.

With regard to differences in quality of life according to sex, none were found. However,

it was found that individuals who reported being married or in a committed relationship endorsed

significantly higher total scores on the Q-LES-Q-SF [$F(4, 91) = 3.89$, $p = .006$] compared to

others. Finally, differences in quality of life were examined according to participants' use of

other mental health services (coded as a dichotomous variable, yes or no), and no significant

differences were found.

Discussion

This study examined whether perceived quality of life is associated with increased

participation in online peer support groups. The results of this study did not support this

hypothesis and are, therefore, inconsistent with the current literature. With regards to quality of

life, studies suggest that individuals who participate in some form of online peer support

typically report an increase in overall quality of life (Crisp et al., 2014, Crisp & Griffiths, 2016;

Gliddon et al., 2015, Nicholas et al., 2012). Evidence for quality of life has been encouraging,

albeit mixed indicating that only those in combined treatment reported significant delayed

improvements in quality of life (Crisp et al., 2014).

Another possible interpretation of our findings is that participation in OPSG, specifically

DBSA online groups, is unrelated to the outcome variable. Participation at one time point of the

data collection indicated that quality of life was significantly correlated, suggesting that

individuals who stated that they attended a DBSA group within the last two months experienced

an increased quality of life. However, individuals who had not recently participated in the DBSA

OPSG also answered just as affirmatively—suggesting that there are additional, unmeasured

variables that may have contributed to the null finding. Based on available research, quality of

life has been shown to improve over an extended duration of time, which suggests that future

longitudinal study is needed to assess further whether an increase in quality of life is correlated

with long-term participation in OPSG. Alternatively, it is also likely that other factors outside of

OPSG may play a role in the perceived quality of life.

Our finding that individuals who are married or in committed relationships report a

higher quality of life is widely consistent with the current literature (Han et al., 2014). Given this

finding, it is likely that having close, meaningful relationships with individuals over the long

term may be deemed a more significant predictor of an individual's overall quality of life. On the other hand, perhaps any benefits of OPSG in terms of quality of life would be more evident for individuals who do not have other sources of social support. Since almost half of our sample reported being married or in a committed relationship, it is possible that this attenuated any potential effect of OPSG on quality of life.

Lastly, while research has indicated significant differences and benefits found in regards to diagnosis, our current study found no significance in diagnosis due to the limited variety of diagnoses based on the DBSA depression and bipolar platform.

Limitations

The current study presents several limitations that should be addressed, including a small sample size, limited data on participants' involvement, and limited access to viewing the DBSA online peer support group platform. Having additional information on how the groups were facilitated and whether or not group members were actively participating could have possibly aided in our interpretation of the findings, and even the design of the study. For instance, information on whether the participants were active clients of DBSA or facilitators of DBSA groups was not collected. Though data were gathered regarding participants' most recent attendance to an OPSG offered by DBSA, the way in which we operationalized this variable may have limited our ability to detect a relationship between participation and quality of life. A related limitation is the cross-sectional design of this study. Another limitation that may have influenced results is inconsistent communication with the DBSA platform while the study was underway. While conducting the study there was minimal contact with DBSA coordinators and periods of no communication that may have influenced participation among DBSA participants. Furthermore, during the pilot study it was unclear if surveys had been distributed due to the

small number of completed surveys received. Finally, the majority of participants were middle-aged, Caucasian women, in suburban geographical areas and thus, the sample was not an accurate representation of the general population and causal associations between online peer support groups and the primary variable cannot be examined.

In sum, despite the limitations, we have identified variables that may aid in increasing quality of life. Although our initial hypotheses proved insignificant, our current research aided in shedding light on how having a support system and being engaged in adjunctive mental health services in addition to online peer support can aid in increased quality of life. Future longitudinal research is warranted to fully understand the effectiveness of online support groups on quality of life.

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TABLES

Table 1

Demographic Characteristics of Sample

Variable	n	$M\,(SD)$	%	%
Age	72	40.01 (15.29)		
			Yes	No
Employed	92		51.6%	47.3%
Recovery from Alcohol/Drugs	93		16.1%	83.9%
Attended DBSA group in past 2 months?	93		50.5%	49.5%
Using other mental health services?	93		72%	28%
Sex	93		Female: 83.9%	Male: 16.1%
Education	93			
Grade school to middle school			1.1%	
High school or equivalent			10.8%	
Some college, no degree			28%	
Trade/technical/vocational training			5.4%	
Associate's degree			12.9%	
Bachelor degree			25.8%	
Master's degree			10.8%	
Professional degree			1.1%	
Doctoral degree			4.3%	
Relationship Status	92			
Single			33.3%	
Married/Committed Relationship			44.1%	
Widowed			3.2%	
Domestic Partnership			6.5%	
Divorced/Separated			11.8%	
Sexual Orientation	93			
Straight			72%	
Gay/Lesbian			5.4%	
Bisexual			16.1%	

Variable	n	M (SD)	%	%
Sexual Orientation cont.				
Queer, Pansexual, Questioning			1.1%	
Decline to Answer			4.3%	
Other ("Open to supporting all")			1.1%	
Living Situation	93			
Alone			11.8%	
With spouse or romantic partner			50.5%	
Roommates			14%	
Group home			1.1%	
Parents or other family members			22.6%	
Geographical Context	93			
Rural			20.4%	
Suburban			50.5%	
Urban			29%	
Diagnosis	93			
Bipolar			26.9%	
Depressive			7.5%	
Trauma			1.1%	
Comorbid			51.6%	
None			12.9%	
How many other mental services used?	93			
0			28%	
1			18.3%	
2			33.3%	
3			17.2%	
4			3.2%	
Ethnicity	93			
White			76.3%	
Black			4.3%	
Asian			5.4%	
Middle Eastern			1.1%	
Latinx			2.2%	
Other			4.3%	
Bi or Multiracial			6.5%	

Table 2

Independent Samples T-Test Examining Differences in Outcome Variable According to Participation in DBSA Groups in the Past 2 months

	Not Participated in the Past 2 Months ($n = 46$)		Participated in the Past 2 Months ($n = 47$)		t(91)	p
	M	SD	M	SD		
QLES Total Score	41.02	12.23	43.25	11.36	-.91	.36

APPENDIX A

Extended Review of the Literature

Author/Year	Research Questions/ Objectives	Sample	Variables/ Instruments	Research Approach/ Design	Major Findings
Bakardjieva,M. (2003)	This article examines the place and value of online relationships and interactions in Internet users' everyday lives. The main questions: Why do users participate in these forums? What does it mean to them? How does it reflect on the public understanding of the internet?	21 domestics users of the Internet in Vancouver, Canada	Online Forums	Qualitative	The article offers a typology of different forms of online involvement with others on the internet.
Barak, A., Boniel-Nissim, M., & Suler, J. (2008)	Hypothesis: The basic argument that this article sets forth is that support groups—in contrast to counseling and therapy interventions— primarily affect participants' Eros also empowerment rather than bring about specific therapeutic changes.	Qualitative and Quantitative review of 73 articles	N/A	Qualitative and Quantitative review of research	The basic argument that this article sets forth is that support groups—in contrast to counseling and therapy interventions— primarily affect participants' personal empowerment rather than bring about specific therapeutic changes.
Crisp, D.A., Griffiths, K.M., Mackinnon, A., Bennett, K., & Christensen, H. (2014)	This study investigated the 'secondary' benefits for self-esteem, empowerment, quality of life, and perceived social support of	Participants comprised 298 adults displaying elevated psychological distress	Participants were randomized to receive: An Internet Support Group (ISG), an automated Internet psycho-educational	Analyses were performed on an intent-to-treat basis.	Following the automated training program immediate improvements were shown in participants' self-esteem and

	12-week online depression interventions when delivered alone and in combination.		training program for depression; a combination of these conditions; to a control website		empowerment relative to control participants. Improvements in perceived quality of life were reported 6-months following the completion of the intervention when combined with an ISG. These findings provide initial evidence for the effectiveness of this online intervention for improving individual wellbeing beyond the primary aim of the treatment. However, further research is required to investigate the mechanisms underlying improvement in these secondary outcomes
Davison, K.P., Pennebaker, S.S., & Dickerson (2000)	The study was implemented in effort to observe social comparison processes with real-world relevance	20 disease categories in 45 metropolitan areas (New York, Chicago, Los Angeles, and Dallas), and 2 online forms	20 different disease categories and a nation-wide online support group	Qualitative design	Support seeking was highest for disease viewed as most stigmatizing and was lowest for less embarrassing but equally devastating disorders. The authors discuss implications for social comparison theory and the use of internet support groups for research and treatment.

Flores-Gonzalez, N. (2002)	A book developed to understand the process whereby kids develop identities in relation to school	N/A	N/A	N/A	Describes how schools can facilitate the development of school-kid identities among Latinx individuals. It concludes with a discussion of school reform that can lead to a Latinx student's success.
Griffiths, K.M. (2017)	This literature review aimed to examine the benefits and possible consequences of using Online Peer Support Groups as sole treatment interventions.	N/A	N/A	N/A	The current evidence does not justify the use of ISGs as a primary treatment. However, a case could be made for the use of depression ISGs as an adjunct to usual care for selected clients, provided that suitable protections, safety nets and monitoring are instituted.
Hsieh, Y.H. & Tsai, C.C. (2012)	This study proposed facilitative strategies as a guide for student's learning and explored the influence of these strategies on the students' online synchronous discussion.	A total of 331 senior high school students from eight computer classes in Northern Taiwan were recruited to participate in the study.	Four strategies—helping students focus on the main topic, facilitating students' making argumentation, giving students positive feedback, and helping students sustain threaded discussion were adopted to facilitate the online	Content Analysis: Participants were randomly assigned into an experimental condition, with the moderators' facilitation to complete online learning tasks, and the control condition	The findings suggest that the moderator helped enhance the collaboration pattern and increase the online participation rate. In addition, it was found that the strategies of helping students focus on the main topic and giving students

			synchronous discussion in the experimental conditions	without moderators' support.	positive feedback were frequently employed.
Lawlor, A. & Kirakowski, J. (2014)	The efficacy of online support groups for mental illness in challenging self-stigma was examined.	99 users	A Mediation model was used to test two variables: (1) online support groups use mediates self-stigma and recovery from self-stigma and (2) recovery from self-stigma mediates OSG use and support seeking.	A mediation model was analyzed using Structural Equation Modelling and data from 99 users	Online support groups use does not challenge self-stigma. Frequency of visits hinders recovery from self-stigma. Active users benefit most due to their pre-existing characteristics that make them active
Lewallen, A., Owen, J., Bantum, E., & Stanton, A. (2014)	The purpose of this study was to identify linguistic and qualitative characteristic of participant's messages that predict how other participates respond in a asynchronous discussion board for cancer-related distress	525 discussion board messages posted by 116 participants in the health-space.net trial was collected Survivors were identified from the Loma Linda University Medical Center comprehensive cancer registry. Eligible subjects wee English speaking and had consistent Internet access.	Linguistic inquiry and word count were used to identify linguistic markers of emotional expression and pronoun use. Message topics were identified using qualitative analysis. In order to identify the effects of the intervention on levels of clinically significant distress, only those who met criteria for current significant distress (>4) on the Distress Thermometer) were included. Once enrolled, participants were randomized to either immediate	Logistic regression and chi-square analyses were used to evaluate whether linguistic characteristics and message topics predicted receiving a response from other survivors in the online group.	Messages were more likely to receive a reply if they had a higher word count of fewer second person pronouns. Messages with high levels of positive emotion were less likely to receive a reply. Common message topics related to self-disclosure, the support group, medical experiences, and experiences with the website. Several topics were associated with greater likelihood of a reply: self-disclosure, medical experiences, relationship issues, and introductory

| | | | access to the health-space.net online support or to a 12-week waitlist control group. The current sample is derived from all participants who received access to the intervention and included individuals from both groups: those who were provided with immediate access and those who began using the group after completing the 12-week waiting period. | | post.

Informing participants how to introduce themselves to the group could promote cohesion and enhance overall engagement with Internet-based support groups or interventions. |
| --- | --- | --- | --- | --- | --- |
| **Mental Health America (2018, March 26)** | DBSA Online Website group information search | N/A | N/A | N/A | N/A |
| **Nicholas, D.B., Chahauver, A., Brownstone, D., Hetherington, R., McNeil, T., & Bouffet, E. (2012)** | This study explored impacts of an online support network for fathers of a child with a brain tumor. | 100 Fathers | Evaluation comprised pre/post-intervention questionnaires, content analysis of online network posting, and post intervention qualitative interviews | Qualitative Design | Findings suggest that this intervention was beneficial to fathers. Positive effects on paternal coping were demonstrated, as were opportunities to grapple with difficult issues related to having a child with a brain tumor. Fathers recommended a combined resource of online and face-to-support, including the development of a support network with a |

					larger participation base.
Palant, A. & Himmel, W. (2019)	The aim of the study was to better understand and describe possible negative effects of social support.	42 patients with IBD	The interviewees were selected using a maximum-variation sampling approach. Grounded theory and the OSOP method were applied to categorize those parts of the interviews that touched on the negative effects of social support	Qualitative Design:	Two interrelated categories emerged: (1) unwanted confrontation and (2) undesirable reactions. The interviewees perceived social support as negative, especially if they felt overwhelmed and/or if they had not asked for it. Consequently, some of the interview partners developed strategies to prevent coming into social contact with others or stopped talking entirely about their disease.
Proudfoot, J., Parker, G., Manicavasgar, V., Hadzi-Pavlovic, D., Whitton, A., Nicholas, J., & Burckhardt, R. (2012)	To examine the comparative effectiveness of an online psychoeducation program for people diagnosed with bipolar disorder with the previous 12 months, completed alone, or with adjunctive peer support, on symptoms and perceived	Psychoeducation program: (n=139) Psychoeducation program + peer support: (n+134) Control condition: (n=134)	Participants were randomly allocated to an eight-week online psychoeducation program: (n=139), Psychoeducation program + peer support: (n+134), or Control condition: (n=134	Qualitative and Quantitative design	Increased perception of control decreased perceptions of stigmatization and significant improvements in levels of anxiety and depression, from pre-to post intervention were found across all groups. There were no significant

	control over the illness				differences between groups on outcome measures, although a small clinical difference was found between the supported and unsupported conditions in depression symptoms and in functional impairment at the six-month follow-up. Adherence to the treatment program was significantly higher in the supported intervention than in the unsupported program. Gender and age were also significant predictors of adherence with females and those over the age of 30 showing greater adherence.
Rowe, M., Bellamy, C., Baranoski, M., Wieland, M., O'Connell, M.J., Benedict, P., & Sells, D. (2007)	To address the substance use and criminality problems of persons with serious mental illness is built on a theoretical framework of "citizenship" derived from our research on outreach to persons with mental illness and homelessness	Participant selection criteria included adults with severe mental illness who had criminal charges within the two years before enrollment in the study. 114 participants, with an average age of 39.8±8.8. Seventy-eight (68%) were men.	Addiction Severity Index (ASI) Criminal justice data was obtained from a nonconfidential state court docket management system containing information on criminal charges, arraignment and disposition	To assess the hypotheses concerning alcohol and drug use, we used general linear mixed-model's procedures, which were particularly appropriate given the multiple missing data points within these data	Controlling for baseline levels of alcohol and drug use, mixed-models analysis showed that those who received the citizenship intervention had overall significantly lower levels of alcohol use across six- and 12-month follow-up

This approach also draws on theory and recent research suggesting that peer staff, with their personal knowledge of coping with psychiatric disabilities and attendant stigma in society, have a special ability to engage clients and support them in their own recovery.	Participants' racial and ethnic background included 66 African Americans (58%), 35 Caucasians (31%), three Native Americans (3%), nine who endorsed an "other" category (8%), and one person who elected not to identify an ancestry (1%). Seventeen participants endorsed Hispanic ethnicity (15%). All were receiving outpatient treatment.	dates, and disposition types for all persons within the Connecticut criminal justice system. Criminal charges were categorized in terms of severity: felony, infraction, misdemeanor, or violation. For the purposes of this study the study focused on criminal charges, where each was weighted equally and counted only once regardless of charge type.	sets, a problem common to longitudinal research involving persons with co-occurring disorders and criminal justice backgrounds. Given complete data, a repeated-measures analysis of covariance (ANCOVA) was used to assess our criminal justice charges hypothesis. Correlational analyses to assess the relation of intervention class attendance to outcome.	periods than those in the control group ($F=12.12$, df=1 and 227, $p<.005$, $\eta2 =.05$) (Table 2). Moreover, the analysis also yielded a significant interaction, where intervention participants showed decreasing levels of alcohol use across follow-up periods and control group participants showed increasing levels of alcohol use across the same follow-up periods ($F=3.90$, df=2 and 227, $p< .05$, $\eta2 =.03$). Baseline ASI alcohol use composite scores were noted to be just slightly lower than that of normative data concerning persons with both criminal justice backgrounds and substance use disorders. Controlling for baseline levels of criminal justice charges, repeated-measures ANCOVA yielded a

					significant main effect for time (F=4.30, df=1 and 111, p<.05, η2 =.04), with both groups decreasing in the number of new criminal charges from zero to six months and from six to 12 months. The intervention showed no main effect for drug use or criminal justice involvement. Partial correlational analyses of outcome variables at times 2 and 3 with attendance at intervention classes controlling for baseline variable levels within the experimental group largely showed no significant relationship between outcome and class attendance level, with one exception: criminal charges at time 2 were negatively correlated with attendance at valued-roles classes

Siampou, F., Komis V., & Tselios, N. (2014)	This paper examines the differences between online synchronous and offline face-to-face collaboration in the context of a computer-supported modeling task.	16 ninth grade students participated in the study, all worked in groups of two. Eight groups worked online, the remaining 8 offline.	A mathematical problem was designed and set to the participants to solve. Their modeling process using Modelling Space, a collaborative computer-supported educational environment, was monitored	The analysis focused on the identification of students' cognitive modeling strategies, their interactions and the learning gain for each type of collaboration. Both qualitative and quantitative approaches were adopted as well as two complementary coding schemes to better investigate the peers' interactions	The results obtained suggest that pairs who worked online emphasized analysis and synthesis; they also demonstrated a higher learning gain. Offline pairs needed the teacher's support and demonstrated stronger social interaction. Moreover, although the actions of offline dyads were more numerous, the dyads that worked online seemed to present more task-oriented actions. Participants in both groups mutually explored the problem, with few disagreements among them. Our findings could inform the design of learning programs and the facilitation of collaborative tasks.
Tanis, M. (2007)	Book: Online Social Support Groups	N/A	N/A	N/A	This book defines online support groups and describes what online support groups have been good for in the past. This book

					touches on the importance of social support and how the internet has added in offering support to those who cannot and/or do not readily have it available to them.
Thomas, E.C., Muralidharan, A., Medoff, D., & Drapalski, A.L. (2016)	The purpose of this research was to assess relationships between social support and objective and subjective recovery in a sample of adults with serious mental illness and to examine self-efficacy as a potential mediator of these relationships.	250 individuals	In this cross-sectional study, a sample of 250 individuals completed measures tapping social support network size, satisfaction with social support, perceived support from the mental health system, self-efficacy, objective recovery (i.e., psychiatric symptoms, social functioning), and subjective recovery.	Pearson product–moment correlations and multiple linear regression analyses examined relationships among social support, self-efficacy, and recovery. A bootstrapping procedure was used to estimate the magnitude and significance of indirect effects in mediation analyses.	All social support domains (i.e., social support network size, satisfaction with support, perceived support from the mental health system) were significantly related to at least 1 objective recovery outcome and to subjective recovery. Self-efficacy was a mediator of all relationships between social support and objective and subjective recovery. The present study aids in better understanding the relationship between social support and recovery in individuals with serious mental illness and paves the way for future research. Particularly relevant to

					mental health service providers, it highlights the importance of establishing and maintaining an effective therapeutic relationship as well as assisting consumers with developing supportive relationships with others.
Turner, J.W. Grube, J.A., & Meyers, J. (2001)	This study investigates the complementary nature of face-to-face and computer-mediated social support and the development of a context through which hyper personal communication can develop within online communities	Participants were recruited through cancer-related listservs on the Internet. Of the 42 self-selected respondents, 71% were female, ages ranged from 20 to 79 (median age between 40–49), and a bachelor's degree represented the median education. Sixty-four percent either had survived breast cancer or presently had breast cancer, 14% had testicular cancer, 7% colon cancer, 12% brain cancer, and 3% had or had survived some other form of cancer.	Optimal matching theory is used as a framework for explaining how hyper personal communication develops within online cancer support communities. We compared online participants' perceptions of illness support from the list with the support they received from a non-mediated relationship. Criterion variables. Participation was operationalized as five behaviors: reading time, private email, face-to-face meeting, going "off" the list, and number of times respondents posted to the list. Reading	Mixed Design Descriptive Statistics, bivariate correlation, and multiple regression	Respondents participated more within the online community only when they perceived that the depth and support that they received from the online community was high, and when the depth and support they received from the specific person in their life was low.

			time was measured by asking participants, "How much time do you spend reading the postings on the list during a seven-day period?" (hours). The number of posts was measured by asking, "How many times do you post to the list during a seven-day period?" Private email was measured by asking participants, "How many people do you stay in contact with through private email that you have met on the list?" We also asked respondents about their face-to-face contact, "How many people have you met face-to-face that you com-municate with on the list?" We also asked respondents if they had ever gone "no mail" for a period of time (yes or no). We speculate that, all else being equal, going "no mail" may indicate less involvement with the listserv. Additionally, we were interested		

			in whether participants kept in contact with individuals through private email when they went "no mail." Finally, we also asked participants how many times they posted to the list during a 7-day period. There were 13 response categories (e.g., 1 = 1–5 times; 13 = over 60 times). The distributions for all behavioral measures (except the dummy-coded variable "no mail") were negatively skewed			
Wright, K.B. & Bell, S.B. (2003)	This literature review of research on health-related computer-mediated support groups links features of these groups to existing theory from the areas of social support and computer-mediated communication research computer mediated. The study examines support groups as weak tie networks, focuses on how these support groups facilitate participant	N/A	N/A	N/A	N/A

	similarity and empathic support and identifies changes in supportive communication due to characteristics of the medium.				

Online Peer Support Groups (OPSG)

Author/ Year	Research Questions/ Objectives	Sample	Variables/ Instruments	Research Approach/ Design	Major Findings
Nimrod; 2013	1. Can members of online depression communities be segmented according to their interests, and what is the frequency of each segment? 2. Can the segments be differentiated using background characteristics, participation patterns, or level of depression? If so, can those differences explain their interests? 3. Are there differences among the groups with regard to perceived benefits gained from participation?	793 members from 16 online depression communities ages: 12-71	Online survey • participation patterns • interest in issues discussed in communities • benefits of participation • depression severity • background questionnaire	Quantitative	Results identified four member groups: concerned about daily living, information seekers, interested in all topics, and relatively less involved. 2 background characteristics found to be important: age and gender. Males were more common in information seekers group and concerned about daily living group were younger than info seekers and those interested in all topics.

Stephen, Christie, Flood, Golant, Rahn, Rennie, Speca, Taylor-Brown, Turner; 2011	Counselor familiarity and engagement with technology-mediated communication represents an important factor in the ability to implement support programs to cancer patients. Describes the experiences of a cohort of expert psycho-oncology counselors who learned to facilitate online support groups (OSGs) and	6 psycho-oncology counselors	N/A	Qualitative	Three themes of the counselors' learning experience emerged: immersion in experiential learning, perceptions of clinical value and benefit, and overcoming challenges with adapted skills. Counselor's described components of their experiential learning: co-facilitating online cancer support groups with an expert, debriefing online, and participating in an online peer supervision group, as critical to their becoming engaged. Despite initial challenges, the counselors learned new skills, and adapted known clinical skills, to the text-only environment.
Kaplan, Salzer, Brusilovskiy; 2012	1) Does community participation differ among emerging and mature adults; 2) What is the relative contribution of age group, and participation in	233 emerging adults: 18-30 year-olds 1594 mature adults: 31+	Community involvement (i.e. parenting, employment, volunteerism, student status, group membership, civic engagement, peer support,	Quasi-experimental data post-test data were collected at 4, 8, and 12 month markers.	Although results varied between age groups, overall results indicate that individuals most involved in community exhibited higher scores on meaning of life,

	predicting three distinct recovery-oriented outcomes, and does the age group and participation interact in any significant way in this prediction; and 3) What is the relative contribution of each type of participation on these recovery-oriented outcomes?		friend and intimate relationships, and religiosity/spirituality) Quality of life, recovery, and meaning of life.		quality of life, and recovery measures.
Corrigan, 2016	Purpose of the article was to explore if online peer support can be effective.	N/A	N/A	Commentary on Naslund et al. (2015)	Identified two research principles that should be considered when examining online peer support, these include: Working to adapt and evaluate the online platforms as a community-based participatory research. Future research needs to strategize to incorporate the participants treatment preference Randomized control trials remain the gold standard for services research.

Corrigan, 2008	The purpose was to develop a toolkit for evaluating programs that foster the reduction of stigma for mental illness. To inform policy makers about approaches that should be funded by public funds. To collect evidence of the benefits in reducing stigma.	N/A	The attribution questionnaires And the family questionnaires The self-stigma of mental illness scale The Recovery assessment scale The level of familiarity scale	Program development that uses an evidence based approach.	Overall, the toolkit provided measures that help to examine the impact of anti-stigma approaches. The instruments may also be beneficial in more research meant to inform policy makers.
Lewallen, Owen, Bantum, Stanton; 2014	Purpose: to identify linguistic and qualitative characteristics of participants' messages that predict how other participants respond in an asynchronous discussion board for cancer-related distress.	N=116 cancer survivors	Variables: Instruments: 525 discussion board messages posted by each participant in the health-space.net trial were collected. Linguistic Inquiry and Word Count (2001) was used to identify linguistic markers of emotional expression and pronoun use. and message topics predicted receiving a response from other survivors in the online group.	Message topics were identified using qualitative analysis. Logistic regression and chi-square analyses were used to evaluate whether linguistic characteristics	• Messages were more likely to receive a reply if they had higher word count, or fewer second person pronouns (e.g. you/your) • First person singular/plural pronouns and third person pronouns were less likely to receive a reply from a peer.

| Mehta and Atreja; 2015 | Purpose: To address challenges of online support networks such as, patient privacy, funding models, quality of content, and research agendas | N/A | Areas addressed:
 • Characteristics of online support group
 • Evidence that groups work
 • Popular social networks
 • Healthcare-specific online social networks | Literature review | "Online support groups can be classified into two main categories.
 1. Popular social networks (e.g. Facebook)
 2. Healthcare-specific online support networks
 a. Networks addressing multiple or any health condition (e.g. PatientsLikeMe, DailyStrength)
 b. Condition-specific online support networks (e.g. Alzconnected, Mood PPRN (Nierenberg, 2013)"

 Various studies show benefits of support groups, more research is need to study the impact on ' hard ' outcomes. |
| Griffiths, Crisp, Christensen, Mackinnon, Bennett; 2010 | Primary objectives: Evaluate efficacy of a depression Internet Support Group (ISG) and an automated psychoeducational and skills Internet Training Program (ITP) for reducing depressive symptoms relative to a plausible Internet Attention Control condition (IAC)

 To evaluate the relative | N=70,000 screening survey ITP= 500 Community members with elevated depressive symptoms | • Internet Support Group
 • Internet Training Program
 • Internet Attention Control condition
 • Anxiety symptoms (PSWQ)
 • Depressive symptoms (CES-D) | Trial design 2x2 Quasi-factorial randomized design Measures administered at screening, baseline, post-test, and 6 and12 months after the intervention commencement. | Study is the first RCT of the effectiveness of a depression ISG, the first to systematically investigate if participating in a peer-to-peer ISG improves adherence and outcomes and the first to investigate comparisons of rural and urban users of an automated psychological intervention. |

	efficacy of the ITP, ISG and combined ITP and ISG interventions; and to ascertain if the adherence rates and magnitude of improvement in depressive symptoms is greater for the ISG and ITP interventions combined than for either condition alone. Secondary objectives: Evaluate the effect of the two experimental interventions on anxiety, disability, social support, loneliness, self-esteem, empowerment, loneliness, depression literacy, stigma and help seeking in people with elevated depressive symptoms; To compare the outcomes of these interventions in rural and metropolitan residents.				

Author/ Year	Research Questions/ Objectives	Sample	Variables/ Instruments	Research Approach/ Design	Major Findings
Brunette, Aschbrenner, Ferron, Ustinich, Kelly, Grinely; 2017	Purpose: To assess the frequency with which consumers in all 13 New Hampshire peer support center used computers to access Internet resources Feedback to inform state planning and policy	702 peer-support users N=200 Responded to survey	Peer assisted survey Questions: "In the last 12 months, how often have you used a computer, anywhere?" "How comfortable do you feel using computers?" "Assume there is someone around to help out if you want help." "In the past 12 months, before taking this survey, have you ever gone online and used the Internet?" "Staff here inform me about online peer support groups, to discuss mental health and recovery issues." "I would like to know more about how to participate in Internet communities devoted to peer support."	Quantitative	More than 3 quarters (78.5%) of respondents had gone online to seek information in the past year. 49% of respondents were interested in learning about online forums that would provide information and peer support for mental health issues.
Wrobleski, Walker, Jarus-Hakak, Suto; 2015	Purpose: To compare peer support worker and mental health worker client outcomes.	N= 15 adults with diagnosis of one of the following: schizophrenia, schizoaffective disorder, bipolar disorder I, or depression	Quality of life interview- brief version General life satisfaction Social relations Daily activities	Mixed methods Randomized control trial Qualitative interviews 45-90 minutes long, at exit	"Significant differences were found in General Life Satisfaction, Satisfaction With Finances, and Daily Activities values at 6 months compared to the baseline when

		with psychotic feature	and functioning	Instrument administered at baseline and 6 months	the groups were combined." "No differences were found between the peer support worker and mental health worker groups on the Quality of Life Interview–Brief Version. Consistent with existing research, which has found that peer support workers produce similar outcomes to non-peer staff."
	To obtain data to inform the design of future programs To add the to literature on peer support groups in order to obtain more funding for peer support workers and peer support programs in general				
Diefenbeck, Klemm, & Hayes; 2014	Purpose: To address gaps in the literature Examine the therapeutic factors that emerge and when they emerge "What therapeutic factors emerged in the group?" and "When did they emerge?"	11 participants in peer led group	Psychosocial outcomes Active participation in group, defined as reading at least 4 messages and posting at least once Peer-led online support group. Self-help format, extended from 12 to 16 weeks due to holidays, no pre-determined agenda or topics	Random assignment of caregivers to different asynchronous online support groups (either peer-led or professional facilitator)	9 of 11 of Yalom's therapeutics factors occurred in non-professionally facilitated online groups: group cohesiveness (96), catharsis (68), imparting information (50), universality (35), Altruism (18), Installation of hope (16), Existential factors (10), Interpersonal learning (3), Corrective recapitulation of the primary family group (1)
Ali, Farrer, Gulliver, Griffiths; 2015	Purpose: • Review evidenc e for effective ness of	Abstracts n=3934 n=6	Abstract inclusion criteria: investigated an online peer-to-	• Systematic review of literature • Three stages of	• Research on online peer support groups for adolescents and emerging adults for is

	peer support groups for adolescents and young adults		peer interaction topics related to mental health, the age range of the sample was between 12 to 25 years the study evaluated the effectiveness of the peer-to-peer interaction. Article written in English	screening Key words searched: • technology, online communities, and methods of peer-to-peer interaction • young people • mental health (ICD-10 list of mental disorders)	lacking • Peer support usually used as an adjunct for treatment, further research needed on effectives of online peer support groups as a stand alone treatment

Author/ Year	Research Questions/ Objectives	Sample	Variables/ Instruments	Research Approach/ Design	Major Findings
Suler, 2004	Purpose: To explore the online disinhibition effect phenomenon	N/A	N/A	N/A	• Described six interacting factors of the online disinhibition effect: dissociative anonymity, invisibility, asynchronicity, solipsistic introjection, dissociative imagination, and minimization authority. • Identified conceptual dichotomies: benign disinhibition and toxic disinhibition • Described individual differences and

					predispositions to being ones "true self" on online platforms. Differences such as personality and culture were explored.
Alleman, 2002	• Addresses clinical, ethical, and economic issues related to providing online counseling	N/A	N/A	Provided commentary and suggestions for implementing online therapy	• Concludes that therapy can be conducted ethically online, without serious threat to face-to-face therapy. • Provided suggestions for practitioners to develop skills in online therapy. Urged clinicians to explore how ethics and legislation might be coordinated and what support systems may need to be established. Further provided suggestions for facilitation of future research.
Gliddon, Lauder, Berk, Cosgrove, Grimm, Dodd, Suppes, & Berk; 2015	Purpose: Evaluate discussion board engagement and perceived impact on social support, quality of life, stigma, and symptom severity for individuals with bipolar	304 participants from research teams in based in Geeling, AUS and Palo Alto, U.S. Inclusion criteria: Aged: 21-65 Diagnosis	Online participant monitoring activity monitoring Online self-report measure Structured Clinical Interview for DSM-5) Hamilton Depression Rating scale Young Mania Rating Scale Montgomery-Asberg Depression Rating Scale	Sub-study of NIMH R34 funded randomized control trial evaluating the efficacy of the MoodSwings online self-help program for bipolar disorder. Implemented qualitative and quantitative	• Online discussion boards demonstrated great potential in improving participants' social support, reducing perceived stigma, and increasing quality of life • It is unclear what type or level of

disorder using MoodSwings 2.0 online self-help program.	of bipolar disorder (confirmed via Structured Clinical Interview for DSM-5) Access to computer with Internet for 12 months Proficient in English Current health professional supervisor for bipolar disorder Local access to emergency care Exclusion criteria: Current psychosis Current mania Acutely suicidal	Social Support Survey Inventory of Stigmatizing Experiences Quality of Life Enjoyment and Satisfaction Questionnaire	study design.	engagement is necessary to reap the benefits • It is also unclear what structures facilitate or inhibit engagement • The MoodSwings online self-help program for bipolar disorder is valuable in that it offers opportunity for participants to engage in a discussion board where natural usage patterns can be observed and monitored, which allows for clear comparisons between users of differing engagement levels • The study will aid future programs in determining whether discussion boards are useful to add • The study also helps to determine whether motivating users to actively engage is necessary.

Crisp & Griffiths, 2014	The purpose of the study was to examine characteristics of individuals interested in participating in an online intervention to improve emotional well-being and prevent or reduce the symptoms of depression. Explored factors that encourage or discourage participation. Explored preferences intervention types.	4761 Australian participants 129 formally consented to intervention trial Comprised from two waves of the Well-Being Project Aged: 18-65 From 2 rural and 2 metropolitan electorates Exclusion criteria: no access to Internet Currently receiving CBT treatment	Completed survey on emotional health Brief phone interview	Random selection of 35,000 participants were mailed invitations to participate Open-ended questions on survey subjected to qualitative thematic analysis Logistic regression analysis	When compared to those who declined to participate, interested Individuals were more likely to be older, female, separated/divorced, and highly educated, with reported current or past history of depression, report higher depressive symptoms, and demonstrated low personal stigma. The biggest barrier to participating was time. Most common suggestion to increase participation was financial compensation.
Naslund, Aschbrenner, Marsch, Bartels, 2016	Given the growing use of social media, the study aimed to offer new perspectives on how online peer-to-peer connections among individuals with serious mental illness could	N/A	N/A	Commentary Proposed conceptual model of how peer-to-peer interactions can afford people with mental illness a space to challenge stigma, increase consumer activation and access online	People with serious mental illness reported benefits from interacting with peers online such as, greater social connectedness, feelings of group belonging and by sharing personal stories and strategies for coping with day-to-day challenges. Evidence that within

	promote mental and physical wellbeing in this group.			interventions for mental and physical well-being.	online communities, individuals could challenge stigma through personal and providing hope. They may also learn from others and gain insight about health care options. Unforeseen risks included exposure to misleading information, hostile or derogatory comments, feeling uncertain about one's condition. Nevertheless, benefits were found to outweigh risks.
Griffiths, Calear, Banfield, & Tam, 2009	Purpose was to systematically identify and summarize the available evidence concerning the scope and findings of studies of Internet support groups (ISG) for depression.	13 of 12,692 papers satisfied inclusion criteria	N/A	Literature review Used PubMed, PsycINFO, and Cochrane Library databases	Quality of studies reviewed was not high and little data were collected on key aspects of ISG's for depression. There is a need for high quality research, given the popularity of ISG's. Better research is required to help "inform decision making by consumers, provider and educational organizations, guideline developers, policy makers, and funding bodies considering using, recommending, providing, or funding such groups."

| Carron-Arthur, Reynolds, Bennett, Bennett, & Griffiths, 2016 | Purpose was to explore Internet Support Group (ISG) content. Content is typically contributed by 1% of users called "super users." | N=131,004 (posts made by 2932 users) | N/A | Qualitative-analyzed online posts made by ISG users.

Used computational methods such as topic modeling, which yielded 21 substantive topics. Chi-square tests were conducted separately for each topic. | "Results suggest that "super users" serve the role of emotionally supportive companions with a focus on topics broadly resembling the consumer/carer model of recovery."

Other users engage in topics with a greater focus on experiential knowledge, disclosure and informational support, which is a pattern resembling the clinical symptom-focused approach to recovery.

"Super users modify their content in response to other users in a manner consistent with being 'active help providers'." |

Depression/Bipolar Disorder/Online Interventions

| Perle, & Nierenberg, 2013 | Purpose:

To provide outline of means and aspects of tele-health and to offer future directions | N/A | N/A | Literature review | Reviewed need for mental health care and access

Studies indicate that telehealth can be effective treatment, specifically is found to be effective for social anxiety disorder, PTSD, and panic disorder.

Efficacy likely linked to "disinhibition effect." |

Wahle, Bollhalder, Kowatsch, & Fleisch, 2017	Aimed at identifying components of technology-mediated mental health information systems (MHIS) for patients with depression. Aimed to assess the effectiveness of technology supported interventions for the treatment of depression Add to the literature on what components technology-mediated MHIS should be the standard of care in the treatment of depression.	6387 studies identified 45 met criteria	N/A	Systematic literature review. Used MEDLINE, PsycINFO, and Cochrane Library databases. Computed effect sizes with control condition using standard mean difference. Chi-square tests were used for heterogeneity. Funnel plots and Begg's test used to examine publication bias. Qualitative data analysis was also conducted.	Found consistent positive overall effect compared to controls in technology-mediated MHIS for the treatment of depression. A total of 15 components were been identified. Future studies are needed to quantify the impact of individual components on treatment effects and to identify further components that are relevant for the implementation of future technology-mediated interventions for the treatment of depression and other mental disorders.
Park & Conway, 2017	Purpose was to investigate longitudinal changes in psychological states that emerge through linguistic changes in	3 online health communities focusing on positive emotion, diabetes, and irritable	Examined emotion related language usages using the Linguistic Inquiry and	Used comparative analysis of groups. Used linear least-squares regression.	Overall, participants of an online depression community showed improvement in 9 of 10 pre-specified linguistic dimensions: "positive emotion," "negative

	depression community members who are interacting with peer depressed individuals.	bowel syndrome	Word Count (LIWC)		emotion," "anxiety," "anger," "sadness," "first person singular," "negation," "swear words," and "death." Individuals' improvement ranged from significantly or at least as much as members of other online health communities. Results should be interpreted with caution as there could be confounding factors in improvement or worsening of depression.
Crisp & Griffiths, 2016	The purpose of the study was to explore the experiences of participants of a 12-week randomized controlled trial of an automated self-help training program (e-couch), with and without an Internet support group for depression.	298 participants	Online survey completed pre and post intervention	12-week randomized controlled trial	Participants reported a high level of confidence in the ability of an online intervention to improve an individual's understanding of depression. In terms of whether a website could help people learn skills for preventing depression, confidence was lower. Benefits reported by participants engaged in the intervention included increased knowledge regarding depression and its treatment, reduced depressive symptoms, increased work productivity, and improved ability to cope with everyday

					stress.
					A minority of participants reported concerns or problems resulting from participation in the interventions.

Quality of Life (QOL)

Author/ Year	Research Questions/ Objectives	Sample	Variables/ Instruments	Research Approach/ Design	Major Findings
Endicott, Nee, Harrison, & Blumenthal, 1993	To introduce new measure of quality of life the: Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q)	95 outpatient participants Mean age: 39.1 (SD = 10.7, range = 18-63) 59% were female Participants primarily had a diagnosis of depression, were in good overall health and mostly free of comorbid disorders with exception of group with comorbid alcohol use disorder	The Q-LES-Q was added to intake and follow-up measures of outpatient participants. Participants also completed The Clinical Global Impressions (CGI) Severity of Illness and Global Improvement scales, the Hamilton Rating Scale for Depression (HAM-D), BDI, and Symptom Checklist-90 (SCL-90)	Participants were administered the various instruments at one or more visits during the screening phase. Subsets of data were analyzed for the reliability and validity of the procedure. Reliability analyses performed included test-retest reliability and assessment of internal consistency of the summary scale score.	The Q-LES-Q summary scale scores are reliable and valid measures of quality of life in a group of outpatients with depression. Scores were sensitive to change. Q-LES-Q scores are measure of important dimensions of illness in other measures generally used to in studies of treatment of depression.
The WHOQOL group, 1998	To report on the development of the WHOQOL-BREF an abbreviated version of the	Two data sets were used to select items for the WHOQOL-	The WHOQOL-100 and the WHOQOL-BREF	Instrument was piloted on 300 people in each of the	The WHOQOL-BREF provides a valid and reliable alternative to the WHOQOL-100. It is thought that the

	WHOQOL-100 quality of life assessment.	BREF. The first included 236 questions relating to quality of life from the WHOQOL pilot study, which was tested at 15 field centers. The second dataset included data from the 13 centers who field-tested the WHOQOL-100. A further dataset including data from 5 new centers that did not participate at the pilot stage but had field-tested the WHOQOL-100.		three field centers. The most general question from each facet of QOL was selected for inclusion on the WHOQOL-BREF. Internal consistency of domains using Cronbach alpha. Discriminant validity was determined using t-tests to differentiate between the ill and well participants. Test-retest reliability was assessed using Pearson's r correlation.	WHOQOLBREF will be most useful in studies that require a brief assessment of quality of life, such as, large epidemiological studies and clinical trials where quality of life is of interest. The WHOQOL-BREF may also be of use to health professionals in the assessment and evaluation of treatment efficacy.
Stevanovic, 2011	Purpose: To further assess whether the Q-LES-Q-Short form is a unidimensional or bidimensional instrument and to provide critique of a psychometric study involving the Chinese version of the instrument.	N/A	N/A	Analysis and critique of previous study's design: exploratory factor analysis and confirmatory factor analysis	Commented on two main findings" Firstly, it is unclear why authors of previous study decided to the factorial structure of the index measure. Second, unclear why original model was not tested. Advised authors to share additional information to justify

					that the Q-LES-Q-Short form is a unidimensional.
Endicott, Rajagopalan, Minkwitz, & Macfadden, 2007	To conduct a clinical trial that demonstrates how treatment affects quality of life for individuals with bipolar depression.	542 patients with bipolar I or bipolar II	Measures used included the Quality of Life Enjoyment and Satisfaction Questionnaire- short form (Q-LES-Q-SF) and the Pittsburgh sleep quality index	8 week, randomized double-blind placebo study. Patients were either treated with quetiapine monotherapy with a dosage of 300 or 600 mg.	Both dosage amounts significantly improved the participant's quality of life. This improvement was consistent over the majority of the Q-LES-Q-SF domains, and was evident in participants classified as responders on the clinical efficacy measures.\n\nQuetiapine therapy also demonstrated a significant improvement in quality of sleep compared with the placebo group. Thus, improved quality of life may enhance patient compliance to treatment.\n\nAssessment of quality of life should be used in future clinical trials in bipolar depression.
Evans, Banerjee, & Huxley, 2006	This study aimed to assess the impact that mental illness has on quality of life (QOL) and its measurement. It examined whether the life-conditions, opportunities and QOL of different mental health-status groups vary, and whether explanatory models of domain-specific and global QOL differ.	Participants included individuals with:\n\nSevere mental illness n=149\n\nCommon mental disorder n = 794/354\n\nNo disorder n = 1119/583	Subjective and objective measures of quality of life were used	Comparative study\n\nParticipants were assessed over a 2 year period.	Results indicated that quality of life was explained differently among the severe mental illness, common mental illness, and no disorder groups.\n\nAdditionally, objective life-conditions were deemed worse in the severe mental illness group than in the no disorder and common mental disorder and groups.\n\nSubjective QOL ratings

					demonstrated that the severe mental illness group scores were lower than the no disorder group and in some life-domains the common mental disorder group.
Han, Park, Kim, Kim, Park, 2014	This study aimed to examine the relationship between quality of life (QOL) and marriage	N= 594,202 from a community health survey Korean men and women were surveyed ranging in age from 30-69	Measures included the EQ-VAS and EQ-5D	Used t-tests and chi-square analyses	Overall, the study concluded that there is a significant relationship between marital status and quality of life. Results indicated that single men had significantly worse QOL.
Hope, Page, & Hooke, 2009	The purpose of this study was to evaluate whether there is value in adding the Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) in the routine assessment battery used at a psychiatric hospital.	N=1276 inpatients treated at a private psychiatric hospital over a two year period.	Quality of Life Enjoyment and Satisfaction Questionnaire (Q-LES-Q) Mental health subscales of the Medical Outcomes Short Form Questionnaire (SF-36) Depression Anxiety Stress Scales Health of the Nation Outcome Scale	Quantitative, calculated effect sizes and correlations.	Overall, the study demonstrated large patient improvement from the time of discharge and admission, across all measures. The Q-LES-Q was correlated with symptom measures already in use Its added to the ability to predict patient length of stay, and showed some divergence from measures of clinical outcomes. The value of considering quality of life in a comprehensive assessment of mental health outcomes is discussed.

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APPENDIX B

IRB Approval Form

PEPPERDINE

NOTICE OF APPROVAL FOR HUMAN RESEARCH

Date: April 23, 2018

Protocol Investigator Name: Natasha Thapar-Olmos

Protocol #: 18-03-758

Project Title: A Pilot Study Examining DBSA Online Peer Support Groups

School: Graduate School of Education and Psychology

Dear Natasha Thapar-Olmos:

Thank you for submitting your application for exempt review to Pepperdine University's Institutional Review Board (IRB). We appreciate the work you have done on your proposal. The IRB has reviewed your submitted IRB application and all ancillary materials. Upon review, the IRB has determined that the above entitled project meets the requirements for exemption under the federal regulations 45 CFR 46.101 that govern the protections of human subjects.

Your research must be conducted according to the proposal that was submitted to the IRB. If changes to the approved protocol occur, a revised protocol must be reviewed and approved by the IRB before implementation. For any proposed changes in your research protocol, please submit an amendment to the IRB. Since your study falls under exemption, there is no requirement for continuing IRB review of your project. Please be aware that changes to your protocol may prevent the research from qualifying for exemption from 45 CFR 46.101 and require submission of a new IRB application or other materials to the IRB.

A goal of the IRB is to prevent negative occurrences during any research study. However, despite the best intent, unforeseen circumstances or events may arise during the research. If an unexpected situation or adverse event happens during your investigation, please notify the IRB as soon as possible. We will ask for a complete written explanation of the event and your written response. Other actions also may be required depending on the nature of the event. Details regarding the timeframe in which adverse events must be reported to the IRB and documenting the adverse event can be found in the *Pepperdine University Protection of Human Participants in Research: Policies and Procedures Manual* at community.pepperdine.edu/irb.

Please refer to the protocol number denoted above in all communication or correspondence related to your application and this approval. Should you have additional questions or require clarification of the contents of this letter, please contact the IRB Office. On behalf of the IRB, I wish you success in this scholarly pursuit.

Sincerely,

Judy Ho, Ph.D., IRB Chair

cc: Dr. Lee Kats, Vice Provost for Research and Strategic Initiatives

APPENDIX C

Information Sheet

DBSA.1

PEPPERDINE UNIVERSITY Graduate School of Education and Psychology INFORMATION SHEET FOR EXEMPT RESEARCH

A PILOT STUDY EXAMINING DBSA ONLINE PEER SUPPORT GROUPS
   You are invited to participate in a research study conducted by Natasha Thapar-Olmos, Ph.D. at the Pepperdine University, because you are affiliated with the Depression and Bipolar Support Alliance (DBSA). Your participation is voluntary. You should read the information below, and ask questions about anything that you do not understand, before deciding whether to participate. Please take as much time as you need to read this document. You may also decide to discuss participation with your family or friends.

PURPOSE OF THE STUDY
   The purpose of the study is to examine the experiences of individuals who have participated in at least one online support group meeting offered by DBSA.

PARTICIPANT INVOLVEMENT
   If you agree to voluntarily to take part in this study, you will be asked to complete an online survey which is anticipated to take about 15 minutes. You do not have to answer any questions you don't want to, and you may click "next" or in the survey to move to the next question.

PARTICIPATION AND WITHDRAWAL
   Your participation is voluntary. Your refusal to participate will involve no penalty or loss of benefits to which you are otherwise entitled. You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights, or remedies because of your participation in this research study.

ALTERNATIVES TO FULL PARTICIPATION
   The alternative to participation in the study is not participating or completing only the items which you feel comfortable. Your relationship with DBSA will not be affected whether you participate in this study or not.

CONFIDENTIALITY
   I will keep your records for this study anonymous as far as permitted by law. However, if I am required to do so by law, I may be required to disclose information collected about you. Examples of the types of issues that would require me to break confidentiality are if you tell me about instances of child abuse and elder abuse. Pepperdine's University's Human Subjects Protection Program (HSPP) may also access the data collected. The HSPP occasionally reviews and monitors research studies to protect the rights and welfare of research subjects.   The data will be stored on a password protected computer in the principal investigators place of office. The data will be stored for a minimum of three years and no more than seven years.

There will be no identifiable information obtained in connection with this study. Your name, address or other identifiable information will not be collected.

INVESTIGATOR'S CONTACT INFORMATION

I understand that the investigator is willing to answer any inquiries I may have concerning the research herein described. I understand that I may contact Natasha Thapar-Olmos, Ph.D. at nthapar@pepperdine.edu or (310) 568-5654 if I have any other questions or concerns about this research.

RIGHTS OF RESEARCH PARTICIPANT – IRB CONTACT INFORMATION

If you have questions, concerns or complaints about your rights as a research participant or research in general please contact Dr. Judy Ho, Chairperson of the Graduate & Professional School Institutional Review Board at Pepperdine University 6100 Center Drive Suite 500   Los Angeles, CA 90045, 310-568-5753 or gpsirb@pepperdine.edu.   **If you would like documentation of your participation in this research you may print a copy of this form.**

○ YES, I agree to participate (1)

○ NO, I do not wish to participate (2)

APPENDIX D

Demographics Questionnaire

How old are you?

_____

What sex was originally listed on your birth certificate?

○ Male (1)

○ Female (2)

○ Decline to answer (3)

Do you consider yourself to be

○ Straight (heterosexual) (1)

○ Gay or lesbian (2)

○ Bisexual (3)

○ Queer, pansexual, and/or questioning (5)

○ Decline to answer (7)

○ Other (Please describe) (4) _____

Please select the group(s) from the list below that best describe your race/ethnicity.

☐   White / Caucasian (1)

☐   Black / African American (2)

☐   Asian (3)

☐   Native American (4)

☐   Native Hawaiian or Pacific Islander (7)

☐   Middle Eastern or North African (8)

☐   Latinx (5)

☐   Other (Please describe) (6) _____

What is your relationship status?

○ Single (1)

○ Married (2)

○ Widowed (3)

○ Divorced or Separated (6)

○ In a domestic partnership (4)

○ Other (Please describe) (5) _____

What is your highest level of education?

○ Grade school to middle school (4)

○ High school graduate, diploma or the equivalent (GED) (5)

○ Some college, no degree (6)

○ Trade/technical/vocational training (7)

○ Associate degree (8)

○ Bachelor's degree (9)

○ Master's degree (10)

○ Professional degree (11)

○ Doctoral degree (12)

○ Other (Please describe) (14) _____

Are you currently employed?

○ Yes (1)

○ No (2)

Which option below best describes your current living situation?

○ I live alone (4)

○ I live with my parents or other family members (8)

○ I live with a spouse or romantic partner (5)

○ I live with roommates (6)

○ Other (Please describe): (7) _____

Pick the one that best describes your geographical context.

○ Rural (1)

○ Suburban (2)

○ Urban (3)

When did you attend a DBSA Online Support Group for the first time?

_____

In the past 2 months, how often have you attended a DBSA Online Support Group?

- ○ 3 or more times per week (1)

- ○ 1 or 2 times per week (2)

- ○ About once a month (3)

- ○ Less than once a month (5)

- ○ I have not attended a DBSA online support group in the past 2 months (4)

Besides DBSA Online Support Groups, do you use any other kinds of mental health services?

- ○ Yes (1)

- ○ No (2)

Display This Question:
    If Besides DBSA Online Support Groups, do you use any other kinds of mental health services? = Yes

What other mental health services do you use? Select all that apply.

- ☐ Individual therapy (4)

- ☐ In-person group therapy or support groups (5)

- ☐ Psychiatry services (medication) (6)

- ☐ Other online support groups (7)

How often do you participate in <u>individual therapy</u>?

○ 2 or more times a week (1)

○ Once a week (2)

○ 1-2 times a month (3)

○ Less than 1-2 times a month (4)

- -

Q43 How often do you participate in <u>in-person group therapy or support groups</u>?

○ 2 or more times a week (1)

○ Once a week (2)

○ 1-2 times a month (3)

○ Less than 1-2 times a month (4)

- -

How often do you participate in <u>psychiatry services</u>?

○ 2 or more times a week (1)

○ Once a week (2)

○ 1-2 times a month (3)

○ Less than 1-2 times a month (4)

How often do you participate in <u>other online support groups</u>?

○ 2 or more times a week (1)

○ Once a week (2)

○ 1-2 times a month (3)

○ Less than 1-2 times a month (4)

Are you in recovery from alcohol or drugs?

○ Yes (1)

○ No (2)

Have you ever been diagnosed with a mental health condition?

○ Yes (1)

○ No (2)

Please list any diagnoses here.

_____

APPENDIX E

Quality of Life Enjoyment and Satisfaction Questionnaire

Name:_____   Date:_____

Quality of Life Enjoyment and Satisfaction Questionnaire – Short Form
(Q-LES-Q-SF)

Taking everything into consideration, during the past week how satisfied have you been with your………

	Very Poor	Poor	Fair	Good	Very Good
…..physical health?	1	2	3	4	5
…..mood?	1	2	3	4	5
…..work?	1	2	3	4	5
…..household activities?	1	2	3	4	5
…..social relationships?	1	2	3	4	5
…..family relationships?	1	2	3	4	5
…..leisure time activities?	1	2	3	4	5
…..ability to function in daily life?	1	2	3	4	5
…..sexual drive, interest and/or performance?*	1	2	3	4	5
…..economic status?	1	2	3	4	5
…..living/housing situation?*	1	2	3	4	5
…..ability to get around physically without feeling dizzy or unsteady or falling?*	1	2	3	4	5
…..your vision in terms of ability to do work or hobbies?*	1	2	3	4	5
…..overall sense of well being?	1	2	3	4	5
…..medication? (If not taking any, check here _____ and leave item blank.)	1	2	3	4	5
…..How would you rate your overall life satisfaction and contentment during the past week?	1	2	3	4	5

*If satisfaction is very poor, poor or fair on these items, please UNDERLINE the factor(s) associated with a lack of satisfaction.