The aim of this data was to inform a systematic review of adult preference, willingness, and likelihood to use e-Mental Health (eMH) services compared to traditional face-to-face (F2F) services. It was conducted with a view to understand how these factors are currently conceptualised and applied to eMH studies, and to determine their role in the uptake of eMH and F2F services. Such a review would identify potential benefits and pitfalls to both end-users and therapists, guide future research, inform policy, and contribute to enhancing eMH uptake as part of stepped care approaches to treatment. This would ensure that future investment in the development and/or dissemination of eMH services is accurately informed and able to address any factors that may interfere with beneficial treatment, limit public access or understanding, and reduce consumer up-take.

Method

Search Criteria

Searches were conducted by the author for articles published prior to January 2016 using the databases of PsychINFO, PsychArticles, Academic search Complete, E-Journals, Psychology and Behavioural Sciences Collection, Web of Science, and Scopus. An independent reviewer conducted a secondary search to ensure accuracy of the primary search. No further relevant articles were returned. Key terms were identified from a preliminary examination of articles in the field, with the final search algorithm structured as: (online OR internet) AND (mental health) AND (preference* OR willingness OR likelihood), with all fields set at their default options (EBSCOhost – *Select a Field (optional),* Web of Science – *Topic* and Scopus – *Article Title, Abstract, Keywords*). The reference lists of identified articles were also examined for relevant articles and grey literature searches using ProQuest Dissertations and Theses database and Google Scholar were also conducted.

Articles were considered eligible for inclusion in the review if the basis of the study explored consumer inclinations of preference, willingness, and likelihood to use an eMH

service, whether for treatment or information seeking purposes. Articles were not excluded on the basis of any demographic variables or populations studied. Articles were excluded if they did not examine mental health; did not discuss 'e' information, interventions or services; the service end-user was not being directly surveyed (i.e. the parent of a child using a service, or recommending a service to a friend); or were only seeking efficacy, or consumer concerns toward eMH services. The search results and selection process of articles is displayed in the PRISMA flowchart contained in Figure 1, with 16 studies meeting criteria for inclusion in the final review.

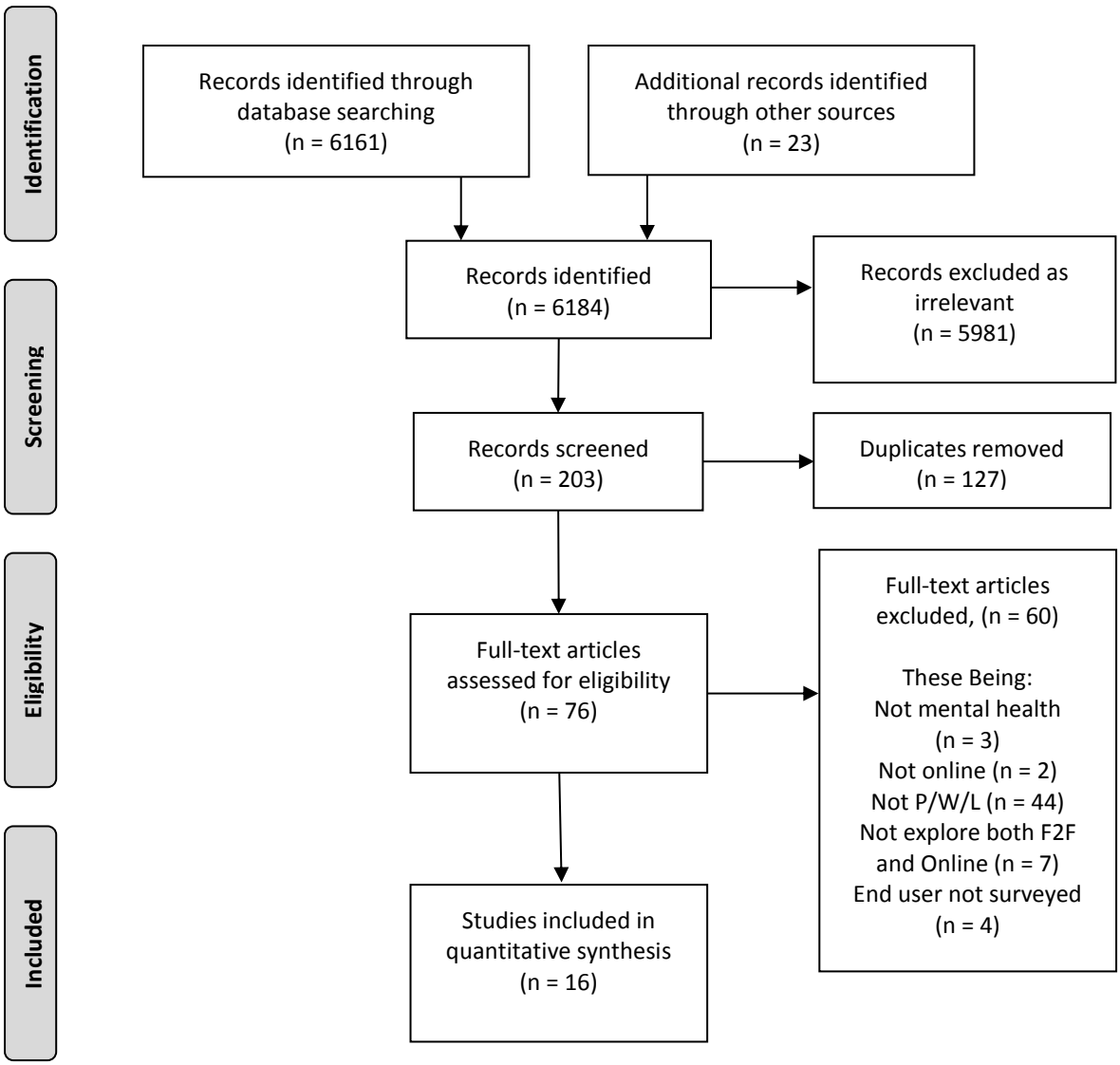

Figure 1: Flowchart of article search process and exclusion criteria at each step.

Of the final 16 studies reviewed, 13 investigated a single construct of either preference, willingness, or likelihood. Six examined preference (Berle et al., 2015; Bradford & Rickwood, 2014; Gun, Titov, & Andrews, 2011; Horgan & Sweeney, 2010; Klein & Cook, 2010; Rogers, Griffin, Wykle, & Fitzpatrick, 2009), three examined willingness (Handley et al., 2014; Lu, Dear, Johnston, Wootton, & Titov, 2014; Mohr et al., 2010), and four examined likelihood (Casey, Joy, & Clough, 2013; Casey, Wright, & Clough, 2014; Eichenberg, Wolters, & Brähler, 2013; Musiat, Goldstone, & Tarrier, 2014). The remaining three studies investigated both preference and willingness (Handley, Perkins, Kay-Lambkin, Lewin, & Kelly, 2015; Kayrouz et al., 2015; Spence et al., 2011). Although Eichenberg et al. (2013) used the terms preference and willingness as descriptors in their article, results were measured on a likelihood scale and therefore is viewed as assessing likelihood.

Results

The 16 studies reviewed were all published between 2009 and 2015, with 10 having been conducted in the three years prior to the literature search. Studies were compared across intention factors of Preference, Willingness, or Likelihood; on how the modalities of traditional F2F and eMH services were presented; sample characteristics and demographics; as well as study characteristics. Extracted information was collated into five sections:

a) Study and aim –author, publication year and aim of study;
b) Design and participants - sample size, sample type, age, gender and study design;
c) Measure – the instrument and/or items used to measure preference, willingness, or likelihood and the analysis type;
d) Results - F2F, online or other modality and whether online included therapist assistance; and
e) Limitations and strengths.

These results are summarised in Table 1.

Table 1.

Relevant extracted data from 16 reviewed studies

Study and Aim	Design and Participants	Measure	Results	Limitations and Strengths
		Consumer Preference		
[1] Berle, Starcevic, Milicevic, Hannan, Dale, Brakoulias & Viswasam (2015) Aim: To determine whether patients prefer face-to-face (individual or group) psychological therapy or online (standard computer or mobile phone) psychological therapy	*N* = 55 Patients at Nepean Anxiety Disorders Clinic (Penrith, Australia), prior to attending first appointment Gender: Not Specified Age: Not Specified Cross-sectional paper survey	Measured: Preference Instrument: 1 Page paper survey (number of items not specified) Item Sample: Not Specified Analysis: Not Specified	F2F preferred over: • online with no contact = 96.4% (53) • online with weekly phone contact = 90.9% (50) Online with no contact preferred over F2F = 3.6% (2) Online with weekly phone contact preferred over F2F = 9.1% (5). Other: Group F2F preferred over: • online no contact = 24 (43.6%) • online weekly phone contact = 18 (32.7) • F2F = 1 (1.8%) • Self-help = 19 (34.5%) Self-help preferred over: • online no contact = 26 (47.3%) • online weekly phone contact = 16 (29.1%) • F2F = 5 (9.1%) • group F2F = 36 (65.5%) Therapist assisted online: Both assisted and unassisted	Limitation: • Unbalanced sample. 42 (76.4%) previously received F2F therapy and 1 (1.8%) having previously received online therapy. • Gender and age figures not supplied. Strength: • Client / therapist relationship not established. • Respondents supplied with definition of each construct. • Online treatment with and without therapist support explored

			Reason for preference: Not Specified	
[2] Bradford & Rickwood (2014) Aim: To determine whether adolescents prefer online or traditional types of mental health service delivery, as well as to examine help-seeking intentions related to treatment of depression and the factors that affect these intentions.	*N* = 231 Australian school students (3 schools, 43.3% public / 56.7% Private, Canberra, Yr 10, 11 & 12) Gender: M = 92 (39.8%) F = 139 (60.2%) Age: 15 – 19 (*M* = 16.31, *SD* = 0.87) Cross-sectional paper survey	Measured: Preference Instrument: Self-developed questionnaire (number of items not specified) Item Sample: Participants were asked to choose overall whether they would prefer to have help: 'over the phone', 'online', 'face-to-face' or 'I would not seek help', and then briefly indicate why they held this preference. Analysis: Frequencies and Pearson's Bivariate Correlation	F2F preference: 58.9% (136) Online preference: 16% (37) Other preferences: • 13% phone • 23.8% not seek help Therapist assisted online: Not specified Reason for preference: Not Specified Barriers: Male, self-stigma, emotional competence, mental health literacy, self-reliance, shyness / social competence. Benefits of Online: Anonymity, access, autonomy, control	Limitation: • Adapted the model for analysis purposes. • Amount of choice adolescent population had regarding engagement.
[3] Gun, Titov & Andrews (2011) Aim: To explore levels of acceptability of Internet-based treatment programs for anxiety and depression between health professionals and lay-people	*N* = 1104/1543 Health Professionals n = 456 Lay persons n = 648 Australian visitors to website operated by Clinical Research Unit for Anxiety and Depression (CRUfAD)	Measured: Preference Instrument: Self-developed questionnaire (number of items not specified) Item Sample: Not Specified	F2F preference: 63.4% (700) Health Professionals = 71.1% Lay People = 58.0%. Online preference: 7.0% (77) Health Professionals = 3.9% Lay People = 9.1%	Limitation: • Respondents already engaging in internet-based treatment programs. • Limited generalisability due to modest sample size • Effect size not reported

	Gender: M = 342 (31%) F = 762 (69%) Age: Range not supplied (*M* = 33.03 *SD* = 13.32) Cross-sectional online survey	Analysis: Frequencies and Chi Square test revealed a significant difference between health professionals and lay people.	Other preference: No Preference either way = 29.6% Health Professional = 25.0% Lay People = 32.9% Other Results: Previous online users reported they were significantly more likely (80.7%) than non-users (43.6%) to seek future treatment online Therapist assisted online: Not Specified Reason for preference: Need for more information about: the effectiveness of Internet-based treatment programs (endorsed by 68% of respondents); the Internet-based treatments available (58%); established ethical/clinical guidelines (58%); legal issues involved/liability (39%); and training (26%).	
[4] Horgan & Sweeney (2010) Aim: To determine how young people use the Internet for mental health information and support.	*N* = 885/922 (868 completed preference section) Irish University Students Gender: M= 333 (37.6%) F = 552 (62.4%) Age:	Measured: Preference Instrument: 30 Item Self-developed questionnaire Item Sample: Not Specified	F2F preference: 79.4% (689) Online preference: 29.6% (179) Other preference: None Other results:	Limitation: • Not generalisable to greater population. Strength: • Large Sample

	18 – 24 (Means & SD not supplied) Cross-sectional online survey	Analysis: Frequencies	88.7% (783/883) of respondents used the internet once or more per day. Therapist assisted online: Not specified Reason for preference: F2F: • more personal, • easier to engage, • relate and communicate • observe body language • greater development of trust • support / treatment tailored to specific needs • More reassuring, comforting safe and direct. Online: • Anonymity • Privacy • Confidentiality • Accessibility, speed and cost • Non-judgemental • good for initial info • less intimidating • Find others with similar experiences.	
[5] Klein & Cook (2010) Aim: To investigate use (previous and future preference) and perceptions of helpfulness for e-mental health and traditional services. Also investigated	*N* = 218 Australian community members Gender: M = 53 (24.3%) F = 165 (75.7%)	Measured: Preference Instrument: Self-developed questionnaire (number of items not specified) Item Sample:	F2F preference: 77.1% (168) Online preference: 22.9% (50) Other preference:	Limitation: • Results did not explore difference between assisted/ unassisted online treatment Strength: • Generalisable to Australian community

whether individual factors such as perceptions of stigma, locus of control (LOC), learning styles and personality traits could distinguish between those who prefer e-mental health services from those who prefer traditional mental health services.	Age: 18 – 80 (*M* = 36.60, *SD* = 14.50) Cross-sectional online survey	Overall, which type of mental health service would you prefer to use if you experienced a mental health problem? 1) Traditional face-to-face mental health assistance or 2) Internet-based mental health assistance with or without support [i.e., communication with a therapist via email, instant messaging, web-cam or skype]). 1 = Non e-preferer, 2 = e-preferer Analysis: Frequencies	• e-preferrers had higher stigma scores • Only 9.6% of respondents (all of whom were F2F preferrers) were NOT willing to use online services at all. • Higher proportion of e-preferers had previous online counselling than non e-preferers. Online modality defined as: Therapist assisted via email, SMS, webcam, Skype Therapist assisted online: Both assisted and unassisted Reason for preference: Not Specified	
[6] Rogers, Griffin, Wykle & Fitzpatrick (2009) Aim: To compare differences in eight emotions of self-disclosure between young adult (21 – 30) internet users who prefer face-to-face therapy to those who prefer Internet therapy	*N* = 328 USA registered facebook users. Required to read and understand English Gender: M = 87 (26.5%) F = 241 (73.5%) Age: 21 - 30 F2F group – (*M* = 24.00, *SD* 2.68) IT group – (*M* = 24.20, *SD* = 2.60) Cross-sectional online survey	Measured: Preference Instrument: Self-developed questionnaire (number of items not specified) Item Sample: Dichotomous question regarding which type of therapy preferred if in need of individual therapy (F2FT or IT). F2FT defined as: individual therapy taking place in a therapists office between therapist and client on 1 - 1 basis. IT defined as: individual therapy taking place via the internet between	F2F preference: 80.2% (263) Online preference: 19.8%% (65) Other preference: None Other results: • 60% (197) reported a previous history of F2F Therapy • 0.6% (2) reported a previous history of online therapy • 39.3% (129) had no previous therapy history.	Limitation: • Only American facebook users, reduces generalisability • Effect size not included

		therapist and client on 1 - 1 basis Analysis: Frequencies	Respondents still more likely to disclose in F2F over online regardless of therapist involvement. Therapist assisted online: Yes Reason for preference: Not Specified	
Consumer Preference and Willingness				
[7] Handley, Perkins, Kay-Lambkin, Lewin & Kelly (2015) Aim: To examine intentions to use internet-delivered mental health treatments among older adults living in rural areas	*N* = 950 Older adults (50 years and older) living in rural and remote Australian communities Gender: M = 383 (40.3%) F = 567 (59.7%) Age: Range not supplied (*M* = 65.50, *SD* = 9.20) Cross sectional paper survey	Measured: Preference and Willingness Instrument: Self-developed questionnaire (number of items not specified) Item Sample: "Which one of these services would you first go to get help for a mental health problem?" *(preference)* and "Would you consider using the computer or the internet as a way of accessing treatment for your mental health?" *(willingness)* Analysis: Frequencies and logistic regression	Online Preference: 1.2% (of 950) General Practitioner Preference: 85.4% (of 950) Online willingness: 13.5% (128) would consider 86.5% (822) would not consider Other results: Knowledge of online interventions was poor, with 75.3% (699) reporting they had never heard of them. Knowledge of online interventions, high psychological distress, having completed a high school education, and daily internet use significantly predicted participant willingness to use online services. Negative beliefs about internet treatments were associated with reduced odds of considering internet treatments.	Limitation: • Some detail missing in reporting of results, e.g. the frequencies of other preference options available to participants

			Therapist assisted online: Not specified Reason for Preference: Negative beliefs concerning the perceived credibility/ effectiveness of internet delivered treatments, as well as broader barriers to using the internet in general Barriers: Distance to services, transport, service cost, lack of services, attitude Benefits of Online: Access, no travel, no wait period, low cost/free.	
[8] Kayrouz, Dear, Johnston, Keyrouz, Nehme, Laube & Titov (2015) Aim: To examine differences in mental health status and treatment-seeking between first and second generation Arab Australians.	*N* = 252/261 (Only 233 answered question regarding preference) Arab Australians Gender: M = 104 (41.3%) F = 148 (58.7%) Age: 18 – 73 (*M* = 37.20 *SD* = 12.60) Cross-sectional online survey	Measured: Preference and Willingness Instrument: 33 Item, bi-lingual, self-developed survey. Drawing on previous surveys. Pilot tested on convenience sample (n = 6) and modified for comprehension Item Sample: Preferred modality consisted of 3 items seeking preference to use internet or F2F treatment for symptoms of stress anxiety and depression (item sample not supplied) Analysis:	F2F preference: 86% (66/76) [Of the 81 respondents who experienced high levels of psychological distress, 76 answered the question related to preferred mode of psychological treatment.] Online preference: 61% (46/76) [Of the 81 respondents who experienced high levels of psychological distress, 76 answered the question related to preferred mode of psychological treatment] F2F willingness:	Limitation: • No validity analysis conducted • Unclear definitions of services • Translated version of survey not validated Strength: • Sound recruitment strategy

		The fourth hypothesis was tested by measuring the frequency of mental health service utilisation of Arab Australians in this study. The fifth hypothesis was tested with each preferred mode of delivery of treatment (i.e. Internet vs face-to-face) divided into either No or Yes/Maybe groups.	90% (209/233) Online willingness: 55% (128/233) Other willingness: • Exercise = 23/47 (49%) • Info from books = 19/47 (40%) • Self-discipline 19/47 (40%) • Self-help group = 1/47 (2%) Therapist assisted online: Not Specified Reason for preference: Not Specified Barriers: Poor mental health literacy, time, stigma, shame, personal beliefs, trust, not think problem severe enough, knowledge of services, cost	
[9] Spence, Titov, Solley, Dear, Johnston, Wootton, Kemp, Andrews, Zou, Lorian, Choi (2011) Aim: To compare the characteristics of Australian adults with PTSD who completed an internet-based survey (Internet sample) with the characteristics of those identified in a national survey (national sample).	*N* = 244 Convenience sample of Australian adults with PTSD responding to an Internet survey about PTSD and trauma hosted on the website of a research clinic conducting research on Internet treatments for depression and anxiety (www.virtualclinic.org.au) Gender: M = 55 (22.5%)	Measured: Preference and Willingness Instrument: Self-developed questionnaire (number of items not specified) Item Sample: Internet respondents were asked if they would try Internet-therapy for PTSD. Respondents were also asked about their preference for face-to-face therapy compared with Internet-	F2F preference: 32% (78) Online preference: 29% (71) F2F willingness: No Figures supplied. Online willingness: 74% (181) Other preference:	Limitation: • Hosted on website of virtual clinic • F2F data collected 2007, e-data collected 2010 • E-service users may be more distressed then F2F (actively seeking assistance/information)

The secondary aims were to examine evidence-based service utilization and barriers to treatment in the Internet sample, and examine the acceptability of Internet therapy to this group. It was expected that respondents to the Internet survey would rate Internet therapy as an acceptable potential treatment option and would report willingness to participate in such interventions.	F = 189 (77.5%) Age: 18 - 65+ (*M* = 41.80, *SD* = 12.20) Cross-sectional online survey	based therapy. Rated on a 7-point Likert scale ranging from 'Very definitely prefer face-to-face' to 'Very definitely prefer Internet' treatment plus an option for those not seeking treatment. Analysis: Frequencies and Chi-square and one-way t-test	39% (95) reported no preference. 19% (47) had neutral intent. Other willingness: 5% (12) reported they 'would possibly NOT try' or 'would definitely NOT try', online therapy. Therapist assisted online: Not Specified Reason for preference: Not Specified Barriers: Cost, service awareness, poor previous experiences, problem not severe enough, reluctance to take medication	
Consumer Willingness				
[10] Handley, Kay-Lambkin, Inder, Attia, Lewin & Kelly (2014) Aim: To explore attitudes towards internet delivered mental health treatments and availability of internet access among adults living in rural areas	*N* = 1246 Adults living in rural and remote Australian communities Gender: M = 486 (39%) F = 760 (61%) Age: Range not supplied (*M* = 59.00, *SD* = 13.30) Cross sectional paper survey	Measured: Willingness Instrument: Single item in larger self-developed questionnaire Item Sample: "Would you consider using the computer or the internet as a way of accessing treatment for your mental health?" Analysis:	Online willingness: 20.1% (250) would consider 79.9% (996) would not consider Other results: More favourable attitudes observed among those participants who reported previous contact with internet based interventions. Males more likely to meet feasibility criteria (relating internet access and willingness to use internet based interventions) than females.	Limitation: • No definition of "internet treatment" being with or without therapist intervention. • No examination of factors influencing participant willingness

		Frequencies and logistic regression	Therapist assisted online: Not specified Reason for preference: Not specified Barriers: Community attitude in rural areas, male, older, higher suicide ideation, knowledge of available services	
[11] Lu, Dear, Johnston, Wootton & Titov (2013) Aim: To provide an update on the mental health needs of the sample, in order to facilitate appropriate allocation of resources to cater to these needs.	*N* = 144/171 (124 completed willingness items) Chinese-speaking International University students studying in Australia Gender: M = 67 (46.5%) F = 77 (53.5%) Age: 18 – 45 (*M* = 24.27, *SD* = 5.07) Cross-sectional online survey	Measured: Willingness Instrument: 32 Item Self-developed questionnaire Item Sample: Willingness to use internet and face-to-face mental health services (2 items), measured by asking to indicate 'yes', 'no' or 'maybe' to the question of whether they would try face-to-face, or internet treatments if they experienced distressing symptoms of stress, anxiety or low mood. Analysis: Frequencies	F2F willingness: 88% (109) Yes = 71 (57%), Maybe = 38 (31%) No = 15 (12%), Online willingness: 77% (95) Yes = 43 (35%), Maybe = 52 (42%) No = 29 (23%) Other: None Therapist assisted online: Not Specified Reason for preference: Not Specified Barriers: Cost, transport, knowledge of available services, time, problem not severe enough language difficulties, mental health literacy	Limitation: • Within-culture and across-culture differences not explored. • Not generalisable. • Convenience sample may have already had positive attitudes toward treatment.

[12] Mohr, Siddique, Ho, Duffecy, Jin & Fokuo (2010) Aim: To examine the level of interest in face-to-face, telephone, and internet treatment and factors that might influence that interest	*N* = 658/3,265 (Only 492 interested in intervention) Patients of Northwestern University General Internal Medicine clinic, USA. Gender: M = 197 (29.9%) F = 461 (70.1%) Age: Range not supplied (*M* = 50.90, *SD* = 15.40,) Cross-sectional paper survey	Measured: Willingness Instrument: Self-developed questionnaire (number of items not specified) Item Sample: Three questions evaluating level of interest (definitely interested, would consider, or definitely not interested) in receiving treatment for the desired treatment targets of mental health (stress, depression, and anxiety), lifestyle (diet and exercise), pain management, and smoking cessation. Analysis: Frequencies and trivariate logistic regression	F2F willingness: 91.5% (450/492) 43.3% (213) definitely, 48.2 % (237) consider, 6.7% (33) not interested Online willingness: 48.0% (236/492) 11.6% (57) definitely, 36.4% (179) consider, 51.8% (255) not interested Other willingness: Phone 62.4% of 492. 18.7% (92) definitely, 43.7% (215) consider, 36.6% (180) not interested Therapist assisted online: Not specified Reason for preference: Treatment targeting mental health, lifestyle, or pain was more strongly predictive of interest in face-to-face treatment. Interest in lifestyle intervention was predictive of interest in internet-delivered treatment. Barriers: Time, transport, stigma	Limitation: • No definition of "internet treatment" being with or without therapist intervention.
		Consumer Likelihood		
[13] Casey, Joy & Clough (2013)	*N* = 217/238 Sample:	Measured: Likelihood	Likelihood of F2F use: Not explored	Limitation:

Aim: investigated whether providing information about e-mental health services might result in higher ratings of perceived helpfulness of services, as well as higher likelihood of future use of the service.	Mostly Australian recruited via email, social networking, and first year university students Gender: M = 48 (22.1%) F = 169 (77.9%) Age: 17 - 60 (*M* = 29.74, *SD* = 11.94) Mixed factorial study with randomly assigned control group (70), text information group (66), and film information group (72). Cross-sectional online survey	Instrument: Used Klein & Cook (2010) questions Item Sample: "If you were going through a personal problem of some sort (e.g., something worrying you, you were going through a tough time), how likely is it that you would use the following services? Please rate your opinion on the following scale." Rated on a 7-point scale from "very unlikely" to "very likely". Internal consistency α = 0.834 Analysis: Frequencies (mean rating) and two-way Mixed ANOVA	F2F Likelihood: Not explored Online Likelihood: Control: *M* = 3.2 Film: *M* = 3.7 Text: *M* = 3.9 Participants reported a significantly greater likelihood of using information Web sites than online counselling services, or programs with or without therapist assistance. Furthermore, participants reported a significantly lower likelihood of future use of online programs without therapist assistance compared to information Web sites, online counselling, or online programs with therapist assistance. Compared to the control group, participants reported significantly greater likelihood of using one of the four e-mental health services when educational information was presented to them in a text format prior to making the rating. No significant differences were found between the text and film groups or film and control groups. Therapist assisted online: Both with and without explored	• Did not seek attitude/likelihood for F2F under same conditions Strength: • Some generalisability to Australian population • Sought effect of information on engagement

			Barriers: Cost, access, geographic constraints, stigma	
[14] Casey, Wright & Clough (2014) Aim: To compare consumer perceptions of barriers to treatment and likelihood of future service use for both internet and face-to-face psychological treatments for work place related depression.	*N* = 53 Potential consumers of a structured online psychological program for workplace depression. Employed. Australian. Gender: M = 18 (34%) F = 35 (66%) Age: 18 – 60 (*M* = 35.57, *SD* = 12.15) Cross-sectional online survey	Measured: Likelihood Instrument: General Help Seeking Questionnaire (GHSQ), alphas not supplied Item Sample: 1 item (If you were having a personal or emotional problem, how likely is it that you would seek help from the following people?) 7-point Likert scale response to 10 separate sources of help (e.g. intimate partner, friend, GP, MH professional, religious leader, etc.) Analysis: Matched-pairs t-test.	F2F likelihood: (*M* = 3.34, *SD* = 2.01) Online likelihood: (*M* = 2.58, *SD* = 1.82) Other likelihood: None Other results: No sig difference between internet and F2F for stigma Therapist assisted online: Not Specified Reason for preference: Not Specified Barriers: Time, access, cost, geographic constraints, stigma, motivation, negative evaluation of therapy, availability of services, emotional concerns	Limitation: • Small sample. • Treatment program in the workplace. • Not generalisable to other populations or disorders.
[15] Eichenberg, Wolters & Brahler (2013) Aim: To explore to what extent the German population is already making use of health-related	*N* = 2411 German Community Gender: M = 1113 (46.2%) F = 1298 (53.8%)	Measured: Likelihood Instrument: Self-developed questionnaire (number of items not specified)	F2F likelihood: 52.7% (n=1264) use in case of need. F2F likelihood for media assisted psychotherapy (*M* = 3.4, *SD* = 1.3)	Limitation: • Items assessed on a likelihood scale however the terms preference and willingness are used interchangeably in the same context

internet offers in general. A further main objective of this study was to reflect the degree of acceptance towards online counselling and media-assisted psychotherapy in case of mental health issues.	Age: Range not supplied (*M* = 51.00, *SD* = 18.60) Cross-sectional Interviewer administered survey	Item Sample: How great is the willingness to use different kinds of media-assisted psychotherapy in comparison to traditional psychotherapy? Responses were rated on a 5-point scale from 'very unlikely' to 'very likely' Analysis: Frequencies and Chi Square	Online likelihood: 43.7% (n=274) Online likelihood: For media assisted psychotherapy (*M* = 1.7, *SD* = 1.0) Other likelihood: 7.6% (n=183) thought the use of mobile phone assisted treatment to be ''rather'' or ''very likely'' Therapist assisted online: Yes Reason for preference: While no reasons for preference were given, readiness to use a particular modality was significantly higher in persons who were already using the relevant modality (i.e. mobile phone, internet, or computer). In addition, there were significant correlations between the willingness to use treatment supported my mobile phones, virtual reality, or the internet, and the frequency of use of the relevant media: mobile phones.	• Explored media-assisted rather than straight online or F2F
[16] Musiat, Goldstone & Tarier (2014) Aim: To investigate the acceptability of e-mental health and m- health in the general population.	*N* = 490/617 Community sample recruited via email, social network, public flyers and National Mental Health internet forum. UK (Mostly general public)	Measured: Likelihood Instrument: Self-developed questionnaire (number of items not specified)	F2F likelihood: Most likely to access. Mean likelihood approx 3.4 ± 1 SE (no other frequencies supplied) Online likelihood:	Limitation: • Analysis type makes it difficult to compare across other studies. • Seeks acceptability of computerised and self-help rather than preference for.

	Gender: M = 105 (21.4%) F = 383 (78.2%) (2 reported as missing) Age: 18 – 78 (*M* = 26.70, *SD* = 8.90) Cross-sectional online survey	Item Sample: Participants were asked to indicate how likely they would be to use each intervention type on a 5-point rating scale ranging from "very unlikely" to "likely". Analysis: Univariate test for difference in likelihood with post hoc comparisons.	Slightly less likely to access than self-help books. Mean likelihood approx 1.6 ± 1 SE (no other frequencies supplied) Other likelihood: Self-help books mean likelihood approx 1.7 ± 1 SE. Smartphone apps rated least likely to access, mean likelihood approx 1.2 ± 1 SE (no other frequencies supplied) Therapist assisted online: Not specified Reason for preference: Main perceived benefits of F2F score greater than 4 out of 6: personal support, helpful, includes feedback (4.9), motivation, credibility (4.7), appeal (4.5). Main perceived benefits of Web-based score more than 4 out of 6: Convenient location, convenient time(4.9), No wait time (4.7), anonymous (4.6), Free (4.2)

Defining F2F and eMH Modalities

Only Rogers et al. (2009) defined the construct of F2F services. For the purpose of this review it was expected that respondents viewed this as traditional face-to-face treatment or therapy, in a health-care setting, with a mental health-care professional, however, definitions were typically absent. Across all studies, the language used to define or describe eMH services was either inconsistent or contained insufficient detail to determine a definition, with only five studies providing definitions to the participants (Berle et al., 2015; Casey et al., 2013; Eichenberg et al., 2013; Klein & Cook, 2010; Rogers et al., 2009).

Of the remaining studies that did not provide detailed definitions of eMH services, the term 'treatment' was used in six studies (Handley et al., 2014; Handley et al., 2015; Kayrouz et al., 2015; Lu et al., 2014; Mohr et al., 2010; Musiat et al., 2014), with the remainder using terms such as 'therapy' (Spence et al., 2011), 'support' (Horgan & Sweeney, 2010), and 'help-seeking' (Bradford & Rickwood, 2014). This variation in terminology lends difficulty to determining true rates of preference, willingness, likelihood, and attitudes toward different types of eMH services.

Sample and Demographics

Sample sizes varied from 53 (Casey et al., 2014) to 2,411 (Eichenberg et al., 2013) participants, however all studies reported participant levels sufficient for the study type and analysis conducted. Ten of the 16 studies utilised Australian samples, with the remaining studies utilising US (Mohr et al., 2010; Rogers et al., 2009), Irish (Horgan & Sweeney, 2010), UK (Musiat et al., 2014), Chinese (Lu et al., 2014) and German (Eichenberg et al., 2013) samples. There were no apparent differences in preference, willingness, or likelihood for eMH services across the various samples.

Age of participants ranged from 15 years (Bradford & Rickwood, 2014) to 80 years (Klein & Cook, 2010), although age was not reported in Berle et al. (2015). No notable differences for preference, willingness, or likelihood were reported between age groups.

The reviewed research showed a prominent bias toward inclusion of female respondents, ranging from 53.5% (Lu et al., 2014) to 78.2% (Musiat et al., 2014) of the sample, with only four studies having less than 60% female participants. One study did not provide frequencies for gender (Berle et al., 2015). While gender bias was not addressed or explored in any of the studies, over-representation by female respondents is noticeably common in mental health research. None of the studies reported any significant effects for gender.

Study Characteristics

Survey delivery. All studies were conducted using cross-sectional surveys, with 10 of the surveys delivered electronically. Five studies utilised paper-based surveys (Berle et al., 2015; Bradford & Rickwood, 2014; Handley et al., 2014; Handley et al., 2015; Mohr et al., 2010) and one study utilised an interviewer-administered survey (Eichenberg et al., 2013).

Measurement of constructs. Measurement of preference, willingness, and likelihood varied greatly between studies. Three studies did not supply information regarding the number of items used to measure the constructs, or provide a sample of the questions asked (Berle et al., 2015; Gun et al., 2011; Horgan & Sweeney, 2010). In the remaining studies, typically, the instrument utilised consisted of one to three items forming part of a larger self-developed questionnaire, with only Casey et al. (2014) using a validated measure in the form of the General Help-Seeking Questionnaire. Item response format also varied, with eight studies utilising a dichotomous choice either between F2F or eMH services, or a Yes/No response to willingness to try eMH. These response options limit the variation in

responses and do not capture varying preference or willingness across different contexts (e.g. eMH plus therapist vs self-help eMH).

Four studies (Casey et al., 2013; Casey et al., 2014; Eichenberg et al., 2013; Musiat et al., 2014) used a Likert scale rating in measuring future likelihood of use and three studies described utilising multi-item questionnaires (Horgan & Sweeney, 2010; Kayrouz et al., 2015; Lu et al., 2014). Of those utilising multi-item questionnaires, Horgan and Sweeney (2010) did not specify how many items were used to measure preference, Kayrouz et al. (2015) included only 3 items to measure preference, and Lu et al. (2014) included only 2 items for willingness. One of the studies reported using a 1-page survey, but did not describe the number of items measuring the key constructs (Berle et al., 2015). Overall, there was a lack of clarity or detail provided about measurement and instruments used as well as inconsistency between studies.

Preference Findings

Preference for F2F services compared to eMH services were consistent across the nine studies that explored consumer preferences for mental health services. In general, frequencies for participant F2F preference ranged from 32% (Spence et al., 2011) to 96.4% (Berle et al., 2015) of participants, compared to participant eMH preference, which ranged from only 1.2% (Handley et al., 2015) to 29.6% (Horgan & Sweeney, 2010) of participants.

Low preference for eMH was evident despite the fact that 10 of the studies were conducted via electronic means, and four studies used participant groups who were mostly familiar with, and using, Internet technologies (Casey et al., 2013; Eichenberg et al., 2013; Gun et al., 2011; Handley et al., 2014). While all but four studies (Berle et al., 2015; Eichenberg et al., 2013; Klein & Cook, 2010; Rogers et al., 2009) noted some barriers to F2F or eMH services, the expected barriers to F2F treatment such as anonymity, time restraints, convenience, accessibility, and cost did not appear to deter the majority of respondents from

demonstrating a preference for F2F services. In many studies it was unable to be determined if eMH services were described as therapist assisted or self-help, so no comparisons could be accurately drawn as to the role the therapist plays in determining consumer preferences.

Willingness Findings

In all six studies investigating willingness to use eMH services, the variable was reported as a dichotomous outcome of *willing* or *not willing*, with three studies also reporting if respondents would *possibly*, *consider*, or *maybe* try eMH (Lu et al., 2014; Mohr et al., 2010; Spence et al., 2011). In four of the six studies, 48% (Mohr et al., 2010) to 77% (Lu et al., 2014) of participants endorsed a willingness to use eMH services, with only Handley et al. (2014) and Handley et al. (2015) showing low willingness (20.1% and 13.5% respectively). However, of those that supplied figures, willingness for F2F services remained higher, with 88% (Lu et al., 2014) to 91.5% (Mohr et al., 2010) of participants indicating they were willing to use F2F services.

Like preference, ability to navigate or use the internet did not present as a barrier to willingness. However, participants who had previously used eMH services appeared more willing to reuse the service (80.7%) compared to those who had not previously used eMH (43.6%) (Gun et al., 2011).

While two of these six studies utilised populations with diverse cultural backgrounds, Arab Australians by Kayrouz et al. (2015) and Chinese Internationals by Lu et al. (2014), effects of cross-cultural influences on willingness to use either eMH or F2F services were not reported. It should also be noted that participants in the Spence et al. (2011) study were PTSD sufferers already accessing a Virtual Clinic and this convenience sample may have influenced a higher rating for eMH-willingness.

Likelihood Findings

The four studies directly investigating likelihood of using eMH and/or F2F services used mean scores derived from Likert scale responses to describe findings. Using a 5-point scale, Musiat et al. (2014) reported a mean likelihood of 1.6 (± 1 SE) for eMH services and 3.4 (± 1 SE) for F2F services. Which was a lower mean likelihood score for eMH compared to the other three studies, but equal or higher than the others for mean likelihood of F2F service use.

Two studies (Casey et al., 2013; Casey et al., 2014) used 7-point scales to measure likelihood of future use. While Casey et al. (2014) reported a mean likelihood of 2.58 (*SD* = 1.82) for eMH services and 3.34 (*SD* = 2.01) for F2F services, Casey et al. (2013) found a mean likelihood of 3.20 (*SD* not supplied) for their pre-test control group, rising to a mean likelihood of 3.90 with service information provided via text. The study did not explore F2F likelihood.

Eichenberg et al. (2013), who measured *preference* and *willingness* of future use on a 5-point likelihood scale, reported a mean likelihood of 1.70 (*SD* = 1.00) for media assisted eMH services and 3.40 (*SD* = 1.30) for media assisted F2F services. Their suggestion that lower future likelihood of eMH service use may be related to a lack of service awareness, and that education regarding e-services may assist with uptake, is supported by Casey et al. (2013) who showed an increase of mean likelihood after providing service information via both text and film.

Future Use of Data

It is hoped that this data will be utilised to inform direction and/or content for other research, reviews and commentary narratives.

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