

Suffolk Libraries: enhancing well-being within its community

Abbie C. Millett^a, Katrina Burrows^a, Nicholas Caldwell^b and Sarah Richards^c

^aSocial of Social Sciences and Humanities, University of Suffolk, Ipswich, UK; ^bSchool of Engineering, Arts, Science & Technology, University of Suffolk, Ipswich, UK; ^cSuffolk Doctoral College, University of Suffolk, Ipswich, UK

ABSTRACT

Libraries are community spaces that offer social and health-related activities. Yet, evidence highlighting how libraries enhance well-being in their communities is limited. This paper examines how activities run by Suffolk Libraries enhance the well-being of users within their community. During Study 1, library users completed a questionnaire investigating library use, loneliness, social connectedness, and social assurance. Study 1 identified that as library usage increased social connectedness, social assurance also increased. During Study 2, activity group users completed a questionnaire investigating happiness, satisfaction with life, and mental well-being before and after their activity group. Study 2 found increases in satisfaction with life and mental well-being after an activity group. These findings demonstrate the positive impact that Suffolk Libraries has on users. Thus, it is concluded that Suffolk Libraries, an example of a community-based service, facilitates well-being. Future work is proposed that examines in what way community services support well-being, as well as user's motivations to engage with these services.

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Introduction

Public libraries are argued to be neutral community spaces which can offer a range of social and health-related activities, aimed at promoting and enhancing the overall well-being of individuals in their community. In the years 2019 to 2020, 34% of individuals used a public library in the UK, with 73% of these individuals reporting that they borrowed resources from the library (books, newspapers, magazines etc.), 26% used IT facilities, 20% attended an event, and 16% used a study space (Department for Digital, Culture, Media & Sport, 2020). Scott (2011) contends that libraries serve five important purposes; they disseminate information and knowledge, encourage diversity, make resources accessible to the public, build communities, and promote economic vitality. In the United Kingdom's county of Suffolk, a network of 45 different sites is managed by Suffolk Libraries. Their services include traditional borrowing facilities but also a variety of community-based social group activities (Suffolk Libraries, 2023). Researchers have highlighted that social engagement in any form of group activity, be that formal or informal learning, leisure or social, correlates with physical and mental health (Herzog et al., 2002). Herzog et al. (2002) also highlighted that those involved in social group activities have a higher quality of life and reduced

feelings of loneliness and isolation. Bjorklund (2011) supports these findings by identifying that adults who are more engaged with social activities report greater life satisfaction when compared with disengaged adults. In addition, Field (2009) further highlights that social activities in older participants promote lifelong learning, social capital, and overall well-being by helping users to develop their social networks and shared social norms and increase the tolerance of others.

Findings from previous studies indicate that public spaces, such as libraries, serve as focal points for the delivery of activities and information related to well-being. Matsuyama and Fujiwara (2021) claim that access to the wealth of information available at a library can enhance career aspirations and educational outcomes as well as increase future well-being and social outcomes for young people. Fujiwara et al. (2022) argue that while assessing the value of the library services is complex, subjective well-being in library users is positively associated with engaging in library activities and that library services should be recognized as holding cultural value and of being beneficial to the welfare of communities. Furthermore, it is argued that engaging with such locations of cultural heritage is positively related to life satisfaction (Ateca-Amestoy et al., 2021). Indeed

CONTACT Abbie C. Millett  a.millett2@uos.ac.uk  Social of Social Sciences and Humanities, University of Suffolk, Waterfront Building, 19 Neptune Quay, Ipswich IP4 1QJ, UK

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MLA (2010) contend that episodic users access the library in response to personal life events and when in acute need. It is unsurprising then that any threat to library services is often met with public outcry. Rooney-Browne (2009, p. 348) argues that libraries 'play a vital role in helping individuals and communities survive economic downturns', while Goulding (2016, p. 3) places the library 'at the heart of the intellectual and creative lives of the communities they serve'. Building on such evidence, this paper examines in what manner Suffolk Libraries attempts to enhance well-being within its community.

Well-being consists of two overall dimensions, hedonia and eudaimonia (Ryan & Deci, 2001). Hedonic well-being relates to immediate situational sensory pleasure and happiness, or in other words the affective aspect of well-being, whereas eudaimonic well-being refers to the psychological function of the individual in terms of self-growth and self-actualization (Ryan & Deci, 2001; Ryff, 1989). It is crucial to capture both dimensions for well-being to be successfully examined. Previous literature has demonstrated that both eudaimonic and hedonic aspects of well-being are distinct, but often overlap (e.g. Rahmani et al., 2018; Ryan & Deci, 2001). Hence, research that successfully incorporates both elements of well-being provides a richer account of the interventions or situation that is under examination (Ryan & Deci, 2001). Consequently, the current paper considers both dimensions of well-being, eudaimonic and hedonic.

Well-being is a widely used concept, yet the dimensions and conceptualizations are often vague or debated, with some authors conceptualizing well-being into different facets (e.g. social, emotional, psychological; Jovanović, 2015) or components (e.g. objective, subjective, internal, external; Alartartseva & Barysheva, 2015). This is particularly the case with definitions of well-being within explicit samples (Ben-Arieh, 2005). For example, one of the most heavily investigated areas of well-being is 'subjective well-being' which was first introduced by E. Diener and Emmons (1984), who define subjective well-being as 'a person's cognitive and affective evaluations of his or her life' (E. Diener et al., 2002, p. 63). This conceptualization often leads to associations with quality of life, positive and negative affect, and overall happiness. However, emphasizing one conceptualization of subjective well-being over others can limit the perspective that is explored, as demonstrated by Bourke and Geldens (2007). During Bourke and Geldens (2007) research, it was highlighted that the crucial components associated with enhanced well-being are individualized and can change depending on the role or perspective adopted. For Bourke and Geldens (2007), this was

evidenced by the differences in young people and youth workers. Subsequently, this paper examines multiple facets of subjective well-being to overcome this issue.

Atkinson et al. (2020) highlighted the importance of a community's well-being in relation to each individual group member's subjective well-being. In their paper, it was discussed that individual well-being must be considered for successful assessment of the community well-being of the group. There are several ways to assess these aspects of community well-being. The most consistently used method is through psychometric testing (e.g. Casas, 2017; Kállay & Rus, 2014; Pontin et al., 2013). Thus, similar to previous literature (e.g. Rahmani et al., 2018; Ryan & Deci, 2001) we will measure well-being using a components-based definition, primarily focused on psychometric scales. Ereaut and Whiting (2008) support this method by stating that as well-being centres around an individual's self-perception of their unique emotional reality, only self-perception, in other words self-reported measures, is valid. Consequently, this project will utilize self-reported measures to examine collective community well-being in Study 1, and individual self-perception and experiences of well-being in Study 2.

Ultimately, collective community well-being and cohesion during Study 1 will be measured by social assurance, social connection, and loneliness. Social assurance can be defined as the requirement for reassurance within one's community and how one's need for social affiliation is accounted for within their social environment (Lee & Robbins, 1995), whereas social connectedness is defined by Lee and Robbins (1995) as the aspect of the self that reflects subjective awareness of interpersonal closeness with the social world. This component, therefore, refers to the awareness, perception, and understanding an individual has of their social relationships. In contrast, loneliness can be defined as the feeling of separation from oneself and others (Griffin et al., 2020), highlighting feelings of isolation and subjective experience. Consequently, through these factors, we can examine not only the level of connection within the community in Study 1 but also how this relates to overall individual well-being and experience. Alternatively, to establish an individual's perception of their life within Study 2, we will measure satisfaction with life, mental well-being, loneliness, and happiness using psychometrics scales.

As such, the aim of this paper is to examine the effect that community spaces, such as those provided by Suffolk Libraries, have on the well-being of their users in terms of both individual and collective community eudaimonic and hedonic well-being. Firstly, within

Study 1, it is hypothesized that activity group attendance would promote the well-being of the users and therefore increase the three aspects of individual well-being.

Study 1

Methodology

Participants

G*Power (version 3.1.9.2, Faul et al., 2009) was used to determine the required sample size. Number of predictors was set to 4, whereas effect size (0.15), significance level (0.05), and statistical power (0.95) were preset and left untouched. The minimum sample size calculated for the multiple regression analyses was $N = 129$.

A total of 341 Suffolk Libraries users took part in Study 1, recruited using opportunity sampling by staff, social media, or from the library newsletter. See Table 1 for a breakdown of the demographic information for the sample. Data were collected on- and offsite at the different library facilities across the county of Suffolk, as well as through their mailing list. These data were collected online due to the COVID-19 pandemic. As a result, a larger number of participants ($N = 341$) were recruited than required ($N = 129$) and expected.

Design

A correlational design was employed. In three multiple linear regression analyses, the predictor variables were history of library facility use, regularity of library facility use, history of library activity and regularity of library activity, and the outcome variables were loneliness, social assurance and social connectedness.

Materials

Three scales were used in Study 1. Loneliness was measured using the University of California, Los Angeles Loneliness Scale (UCLA; D. Russell et al., 1980) which comprises 20 items. Each item is rated on a 5-point scale (0 = not true at all, 1 = rarely true, 2 = sometimes true, 3 = often true, and 4 = true nearly all the time), with higher scores reflecting higher levels of loneliness. According to D. Russell et al. (1980), the UCLA Loneliness Scale has good internal consistency, $\alpha = .89$.

The current study highlighted that the UCLA Loneliness Scale has excellent internal consistency with a Cronbach's alpha of $\alpha = .92$.

Social connectedness and social assurance were measured using the Social Connectedness and Social Assurance Scale (Lee & Robbins, 1995). This is a 16-item scale, with items 1 to 8 relating social connectedness and 9 to 16 measuring social assurance. Each item within this scale is rated on a 6-point scale (1 = strongly disagree, 2 = disagree, 3 = mildly disagree, 4 = mildly agree, 5 = agree, and 6 = strongly agree), with higher scores reflecting higher levels of social connectedness and social assurance. According to Lee and Robbins (1995), this scale has excellent internal consistency for social connectedness, $\alpha = .91$, and good internal consistency for social assurance, $\alpha = .82$. In the current study, we reported excellent internal consistency for social connectedness, $\alpha = .95$, and good internal consistency for social assurance, $\alpha = .85$.

Suffolk Libraries usage was measured on two parameters, facility use and activity use. Firstly, facility use, which refers to any on-site facility use across the county of Suffolk, such as computer usage, book lending, and printing, was measured. This was measured using questions focused on historical use of the facilities and regularity of facilities use. For example, participants were asked, 'on average, how many times do you make use of the Suffolk Libraries facilities a month?' for regularity of facilities use and 'how long have you been using the Suffolk Libraries facilities?' for historical use of the library facilities. Additionally, activity usage, which refers to attendance of any organized activity group held at one of the Suffolk Libraries sites, such as knitting groups or parent-toddler groups, was measured. Again, activity use was measured in terms of historical attendance of the activity groups and regularity of activity group attendance. For example, participants were asked, 'on average, how many times do you attend activities at Suffolk Libraries a month?' for regularity of activity group attendance and 'how long have you been attending activities at Suffolk Libraries?' for historical use of the library activity groups. For historical library (facility and activity) use, participants were given options between 'never', 'my first session', '6 months', '1 year', and 'over one year'. These options were then coded between 0 and 4 ready

Table 1. Demographic information for Study 1.

	N	Frequency	Mean age (SD)	Age range
N	341	–	57 (15.06)	18–89
Male	86	25.21%	62 (14.48)	18–89
Female	248	72.72%	55 (14.77)	18–86
Non-Binary	4	1.17%	35 (15.43)	20–50
Self-describe	1	0.29%	39	39
Prefer not to declare	2	0.58%	21.5 (1.41)	20–23

for data analysis, with historical use increasing as the scale increased. Similarly, for regularity of library use, participants were asked how frequently they attended library activities or used facilities ranging between 'my first session', 'less than once a month', 'once a month', and 'once a week' which were then also coded between 0 and 4 ready for data analysis, with regularity increasing as the scale increased.

Procedure

Ethical approval was granted from the University of Suffolk Ethics Committee (Reference number RETH20/053, Approval date: 30/07/2021). The study was delivered online via Qualtrics.

Participants were presented with the appropriate information sheet and consent form prior to completing the following questionnaires, the UCLA Loneliness Scale (D. Russell et al., 1980), and the Social Connectedness and Social Assurance Scales (Lee & Robbins, 1995) in a counterbalanced order. Next, participants were asked to fill in demographic questions including, age, gender, and activity session(s) attended. Following this, participants were asked a series of questions about their usage of the facilities and activities. These questions covered the frequency of attendance, consistency of their attendance, as well as any other library services the individual may make use of. Lastly, participants were provided with a debrief informing them of contact details, support services links, and the next stages of the research, as well as the option to enter a prize draw in return for their participation.

Data analysis

To explore the effects that activity group and facility use have on the collective well-being of the Suffolk community, simultaneous multiple linear regressions were conducted. More specifically, three simultaneous multiple linear regressions were used to investigate whether

history of facility and activity use, as well as regularity of facility and activity use predicted loneliness, social connectedness, or social assurance. Within this analysis, history of facility and activity use were treated as predictor variables. These variables were used as continuous variables with participants predicting on average how often they frequent Suffolk Libraries within a month, as well as participants estimating how long they had been using the libraries in the past. Our outcome variables for these analyses were loneliness, social connectedness and social assurance which were collected as continuous index variables in line with their respective scales. Gender was not included as a predictor variable in the regression analysis due to a significant skew in the sample towards female participants, which could compromise the reliability of the findings. Similarly, age was excluded as a predictor variable, as the sample predominantly consisted of older participants (aged 57 and above), potentially limiting the generalisability of the results. Finally, 3 partially completed responses were removed prior to analysis resulting in a final $N = 338$ in the three regression models.

Results and discussion

Descriptive statistics and correlations between each variable for Study 1 are presented in Table 2.

Loneliness

A simultaneous multiple linear regression was used to investigate whether history of facility use, regularity of facility use, history of activity use and regularity of activity use predicted loneliness within Suffolk Libraries users. The correlation matrix indicates that loneliness was not significantly correlated with any of the library usage variables, whereas all but history of library facility use and regularity of library activity use were significantly correlated (see Table 2).

Table 2. Descriptive statistics and correlations between history of facility use, regularity of facility use, history of activity use, regularity of activity use, loneliness, social connectedness and social assurance for Suffolk Libraries users.

	Mean	Standard Deviation	Loneliness	Social Connectedness	Social Assurance	History of facility use	Regularity of facility use	History of activity use
Loneliness	39.02	10.59	–					
Social Connectedness	20.56	6.74	.79*	–				
Social Assurance	57.15	15.06	0.15*	0.17*	–			
History of facility use	42.06	21.68	–.02	–.02	–.06	–		
Regularity of facility use	4.97	5.31	.06	.08	–.06	.34***	–	
History of activity use	12.84	22.80	–.05	–.07	.12**	.12**	.15***	–
Regularity of activity use	1.00	2.70	.02	.09*	.07	.07	.26***	.56***

* $p < .05$, ** $p < .01$, *** $p < .001$. Higher scores of loneliness indicate higher levels of loneliness, higher scores of social connectedness indicate higher levels of social connectedness, and higher levels of social assurance indicate higher levels of social assurance.

Overall, the regression model was not significant, $F(4, 333) = .83$, $p = .51$, $R^2 = .01$, with 1% of variance in loneliness being explained by history of facility use, regularity of facility use, history of activity use and regularity of activity use. History of facility use, $\beta = -.03$, $p = .56$, regularity of facility use, $\beta = .06$, $p = .27$, history of activity use, $\beta = -.09$, $p = .19$, and regularity of activity use, $\beta = .06$, $p = .40$, did not predict changes in loneliness.

Social connectedness

A simultaneous multiple linear regression was used to investigate whether the history of facility use, regularity of facility use, history of activity use and regularity of activity use predicted social connectedness among Suffolk Libraries users. The correlation matrix indicates that social connectedness significantly positively correlates with regularity of activity use. All other library usage factors did not significantly correlate with social connectedness. In addition, all bar history of facility use and regularity of activity use were significantly correlated (see Table 2).

Overall, the regression model was significant, $F(4, 333) = 3.15$, $p < .02$, $R^2 = .04$, with 4% of variance in social connectedness being explained by history of facility use, regularity of facility use, history of activity use and regularity of activity use. History of facility use, $\beta = -.03$, $p = .56$, and regularity of facility use, $\beta = .07$, $p = .21$, did not predict changes in social connectedness, whereas history of activity use, $\beta = -.18$, $p < .007$, and regularity of activity use, $\beta = .18$, $p < .007$, significantly predicted social connectedness, suggesting that as library activity usage increased social connectedness also increased, feelings of social connectedness decreased as history of activity use increased. These findings will be further discussed in the general discussion.

Social assurance

A simultaneous multiple linear regression was used to investigate whether history of facility use, regularity of facility use, history of activity use, and regularity of activity use predicted social assurance within Suffolk Libraries users. The correlation matrix indicates that social assurance significantly positively correlates with regularity of activity use. All other usage factors did not significantly correlate with social assurance. In addition, all bar history of facility use, and regularity of activity use were significantly correlated (see Table 2).

Overall, the regression model was significant, $F(4, 333) = 3.36$, $p < .01$, $R^2 = .04$, with 4% of variance in social assurance being explained by history of facility use, regularity of facility use, history of activity use and regularity of activity use. History of facility use, $\beta = -.04$, p

$= .46$, regularity of facility use, $\beta = -.09$, $p = .10$, and history of activity use, $\beta = -.02$, $p = .76$, did not predict changes in social assurance. However, regularity of activity use positively predicted social assurance, $\beta = .20$, $p < .003$, suggesting that as activity usage increased social assurance also increased.

In summary, to explore the effects that Suffolk Libraries activities and facilities have on the well-being of its users, multiple regression analyses were conducted to investigate whether history and regularity of facility use, as well as history and regularity of activity use, predicted loneliness, social connectedness or social assurance. No significant findings were identified in terms of all library usage for loneliness. However, as regular activity use increased, social assurance also increased. In addition, as history and regularity of activity use increased, social connectedness also increased, thus suggesting that increased engagement with library activities positively impacted users well-being in terms of social assurance and social connection. Finally, as Study 1 highlighted significant relationships between activity use and social assurance and connectedness, there is evidence to demonstrate that Suffolk Libraries is related to the collective well-being of its users within the Suffolk community.

Study 2

As previously mentioned in the introduction, Atkinson et al. (2020) highlighted the importance of a community's well-being in relation to each individual group member's subjective well-being. Thus, Study 2 extends the findings of Study 1 by examining individual self-perception and experiences of well-being before and after an activity group has taken place. It is hypothesized that the activity group attendance will promote the well-being of the users and therefore increase each component of well-being indicators that is outlined in the following section.

Methodology

Participants

G*Power (version 3.1.9.2, Faul et al., 2009) was used to determine the required sample size. Effect size (0.5), significance level (0.05) and statistical power (0.95) were preset and left untouched. The minimum sample size calculated for the paired samples t-tests analyses was $N = 47$.

Forty-seven Suffolk Libraries activity users took part. Participants were recruited by opportunity sampling by Suffolk Libraries staff from local Suffolk County facilities at Lowestoft, Ipswich, Bury

Table 3. Demographic information for Study 2.

	N	Frequency	Mean age (SD)	Age range
N	47	–	47 (19.87)	24–78
Male	9	19.15%	62 (15.62)	35–76
Female	38	80.85%	44 (19.46)	24–78
Non-Binary	0	–	–	–
Self-describe	0	–	–	–
Prefer not to declare	0	–	–	–

St. Edmunds and Haverhill towns. Please see [Table 3](#) for a breakdown of the demographic information for the sample.

Design

A quasi-experimental design was employed. In the three paired samples t-tests, happiness, satisfaction with life and mental well-being were compared before and after attending a library activity group.

Materials

Three questionnaires were used in the study. Happiness was measured using the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) which is comprised of four items using a 7-point scale ranging from ‘not at all’ to ‘a great deal’ with higher scores reflecting higher happiness. According to Lyubomirsky and Lepper (1999), this scale has a good internal consistency with a Cronbach’s alpha ranging from .79 to .94. The current study highlighted that the Subjective Happiness Scale has good internal consistency with a Cronbach’s alpha of $\alpha = .85$ before the activity group and $\alpha = .61$ for after.

Satisfaction with life was measured using E. D. Diener et al. (1985), 5-item Satisfaction with Life Scale. Each item is rated on a 7-point scale ranging from ‘strongly disagree’ to ‘strongly agree’ with higher scores reflecting higher satisfaction with life. Previous research has demonstrated that this scale has good internal consistency with Cronbach’s alphas ranging from .79 to .91 (e.g. Clench-Aas et al., 2011; Hultell & Gustavsson, 2008; Pavot & Diener, 1993, 2008). The current study highlighted that the Satisfaction with Life Scale has excellent internal consistency with a Cronbach’s alpha of $\alpha = .91$ before the group activity and $\alpha = .93$ for after.

Lastly, mental well-being was measured using the 14-item Warwick–Edinburgh Mental Well-being Scale (WEMWBS) developed by Tennant et al. (2007). Each item is rated on a five-point scale with higher scores reflecting higher levels of mental well-being. According to Tennant et al. (2007), this scale has a good internal consistency with a Cronbach’s alpha of .91. The current study highlighted that WEMWBS Scale has excellent internal consistency with a Cronbach’s alpha of $\alpha = .94$ for before the activity group and $\alpha = .94$ for after.

Procedure

Ethical approval was granted from the University of Suffolk Ethics committee (Reference number RETH20/053, Approval date: 30/07/2021). The study was delivered online via Qualtrics. Participants were approached by Suffolk Libraries staff at the start of their normal activity group and asked to take part in the research. Once consent was provided, participants were presented with; the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), WEMWBS (Tennant et al., 2007) and the Satisfaction with Life Scale (E. D. Diener et al., 1985) in a counterbalanced order. In addition, participants were asked to provide their demographic information as well as Suffolk Libraries facility and activity usage, at the start of the activity group. Participants then took part in their activity group. Once the activity finished, participants were again presented with the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), WEMWBS (Tennant et al., 2007) and the Satisfaction with Life Scale (E. D. Diener et al., 1985) again in a counterbalanced order, before being presented with the debriefing information.

Data analysis

Data from this study were exported from Qualtrics into Microsoft Excel. In Microsoft Excel the data were paired, partial responses were removed, and all participant identifiers were subsequently removed before the data were exported to SPSS for analysis. To demonstrate the effects of Suffolk Libraries activity group attendance on satisfaction with life, happiness and mental well-being, three paired samples t-tests were conducted to investigate any significant differences before and directly after an activity group had took place. Satisfaction with life, happiness and mental well-being were treated as continuous dependent variables, with pre- and post-treated as independent variables.

Results and discussion

Mean scores for satisfaction with life, happiness and mental well-being, before and after the activity group, are shown in [Figure 1](#).

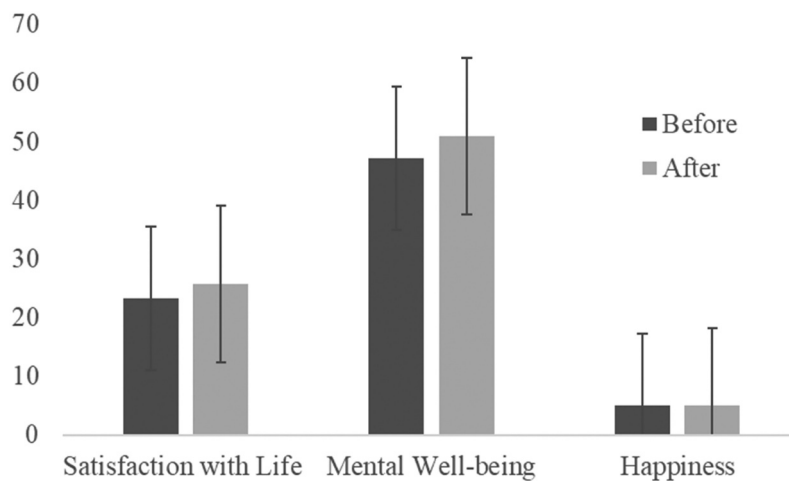


Figure 1. Mean scores for satisfaction with life, happiness and mental well-being, before and after the Suffolk Libraries activity group. Error bars represent error with 95% CI.

Satisfaction with life

A paired samples t-test was used to investigate the difference in satisfaction with life before and after an activity group had taken place. Participants reported significantly higher levels of satisfaction with life after attending an activity group ($M = 25.70$, $SD = 5.90$) than before ($M = 23.34$, $SD = 6.71$), $t(46) = 2.29$, $p < 0.05$, $d = .33$. These results suggest that Suffolk Libraries activity groups were effective at promoting user's perceived satisfaction with life, increasing by 6.74%.

Mental well-being

A paired samples t-test was used to investigate the difference in mental well-being before and after an activity group had taken place. Participants reported significantly higher mental well-being after attending an activity group ($M = 50.94$, $SD = 9.59$) than before ($M = 47.23$, $SD = 10.62$), $t(46) = 2.29$, $p = 0.02$, $d = .35$. These results suggest that the Suffolk Libraries activity groups were effective at promoting user's perceived mental well-being, increasing by 5.3%.

Happiness

A paired samples t-test was used to investigate the difference of happiness before and after an activity group has taken place. There was no significant difference in participants reported happiness before ($M = 4.97$, $SD = 1.10$) or after an activity group has taken place ($M = 4.92$, $SD = 0.93$), $t(46) = .30$, $p = .77$, $d = .04$.

To explore the effects that Suffolk Libraries activity groups have on the subjective well-being of its users, three paired samples t-tests were conducted. More specifically, satisfaction with life, happiness and mental well-being were examined before and after users had

attended an activity group. Results highlighted a significant increase in satisfaction with life and mental well-being after attending a Suffolk Libraries activity group, but there was no effect on happiness. In summary, Study 2 provides evidence to demonstrate that community spaces, such as Suffolk Libraries, influence the individual well-being of their users and thus are related to community well-being.

General discussion

The aim of this paper was to examine the effect that community spaces have on the well-being of their users. Study 1 assessed eudaimonic community well-being by measuring loneliness, social connectedness and social assurance. No significant findings were identified for loneliness; however, as activity group use increased, social connectedness and social assurance also increased. Study 2 analysed the impact that activity group attendance has on the individual in terms of both eudaimonic and hedonic subjective well-being, using measures of happiness, satisfaction with life and mental well-being before and after an activity group. There was no significant effect on happiness; however, there was a significant increase in satisfaction with life and mental well-being after attending an activity group. Collectively, these results demonstrate that community spaces, such as Suffolk Libraries, have a significant positive impact upon users for both eudaimonic and hedonic well-being.

Within the current findings, there was no significant reduction in loneliness in Study 1 or increase in happiness in Study 2. Contextually, Suffolk Libraries serves primarily a rural community where loneliness is more

likely to be reported according to multiple studies (e.g. Hussain et al., 2023; Rainer & Martin, 2012; O'Shea et al., 2012). Van Beek and Patulny (2022) highlighted that rural communities perceived their loneliness to be higher than urban communities; this could suggest that factors such as geographical proximity to others impact perceptions of loneliness. In this respect, one could argue that despite social connectedness increasing in the described sample, the observed null effect on loneliness could be due to perceptions of loneliness within a rural setting. Williams et al. (2022) highlight the importance of developing interventions such as volunteering and connecting to groups over shared experiences in the fight against loneliness in rural communities, thus further accentuating the need for such community spaces that bring individuals in rural settings together. Further research should examine the long-term effects of community spaces as an intervention on perceived loneliness in isolated communities.

Although loneliness has been identified as a growing crisis (Lippke & Lisa, 2023), COVID-19 may have exacerbated issues surrounding social isolation and pushed perceptions of loneliness into the forefront of societal awareness. Our findings may have been impacted by increased nostalgia within the sample as a result of COVID-19. Nostalgia can be defined as 'a sentimental longing for one's past' (Sedikides et al., 2008, p. 4). Several studies report nostalgia in everyday life (e.g. Wildschut et al., 2006). The purpose of nostalgia has been stated as a mechanism that provides a means for storing positive affect, and therefore, nostalgia can strengthen social connections (Hertz, 1990; Wildschut et al., 2006). At the time of data collection, during the COVID-19 pandemic, the samples were experiencing extreme existential health threats. Consequently, when the library user's reality did not reflect normal societal pressures, participants may have increased their nostalgic behaviour to process their new reality. Similarly, the well-being of our sample may have differed from the target population norm (Möhring et al., 2021). Giebel et al. (2021) highlighted the effects that COVID-19 had on the general population's subjective well-being, particularly concerning quality of life and anxiety. Their study highlighted that reduced access to social support, due to the COVID-19 pandemic, resulted in a reduced quality of life and an increase in anxiety. Nevertheless, despite this exceptional circumstance, we identified several positive effects on the well-being of the sample, highlighting that community spaces, such as Suffolk Libraries, facilitate good health and well-being, even during times of crisis.

Ultimately, the findings of our study suggest that Suffolk Libraries act as a mechanism of encouraging

good health and well-being within their community. Previous work by Ali et al. (2021), provides recommendations that can be used to promote the continued positive development of mental well-being alongside the COVID-19 pandemic, which Suffolk Libraries encourages within their users. The promotion of these recommendations provides insight within the findings of this study. These recommendations (Ali et al., 2021) highlight the need for individuals to connect with others, the importance of diverse activities, and finally, to develop connections with remote participants. The current work demonstrates how the implementation of this guidance may have supported users during and following the COVID-19 pandemic. Future work would benefit from investigating how community spaces, such as Suffolk Libraries, facilitate well-being beyond the COVID-19 pandemic by replicating the current work. Yet, the findings of this study still provide strong evidence that public spaces, such as libraries, are important institutions for the promotion of good health and well-being.

The methodology of this paper has acknowledged limitations. Primarily, the use of scale measures can be criticized for being subjective (DeVellis, 2017), increase bias within the sample (Podsakoff et al., 2003), have limited precision (Furr, 2011) and have limited capacity to capture the complex experiences of mental health and well-being (Kirmayer et al., 2011). However, despite these limitations the use of psychometric scales within well-being research remains common practice and offers the unique benefits of capturing the experiences of participants in a simple, standardized and replicable method. Our sample for both Study 1 and 2 comprised users with differing demographic characteristics and was reliant on participants volunteering their time to take part in the research without compensation. Therefore, our measurements needed to be inclusive and expeditious. While our study will retain the limitations of using psychometrics scales, we have reported high reliability within the Cronbach's alphas (see materials for Study 1 and 2). Most notably, the only measurement that had a lower than .8 reliability (.61) was in Study 2, for the happiness scale after activity group attendance. It is unclear why the Subjective Happiness Scale (Lyubomirsky & Lepper, 1999) had reduced reliability, and consequently no significant finding identified for happiness, in this instance. Possible causes might be measurement error, external factors influencing mood or participant fatigue after activity group attendance. However, further research explicitly on happiness is essential before a conclusion can be drawn. Despite these limitations with our methodology, significant results were found, further supporting the need to explore the effect that public community spaces, such

as libraries, have on the well-being of their users. Building on this study and acknowledging the limitations present, future work would benefit from exploring why users engage with these community spaces and services as well as the lived experiences of users in terms of mental health and well-being.

While the current work provides support for the importance of connection among the users of community spaces, including remote participants, the significance of the diversity of groups was not investigated. Future work would benefit from examining the individual effects of different activities, as well as independent user activity, within community spaces (e.g. parent and toddler group, retired groups, independent study). Another consideration that must be acknowledged is that our sample comprised only of existing users. It could be argued that our sample is at risk of self-selection bias as users have already invested a significant proportion of their time in these services. Thus, these users may be more invested in the success of the services and altered their responses accordingly (Banyard et al., 1996). Despite this criticism, the motivations behind choosing to engage within community services was not the purpose of the current work. Instead, the focus was on the effects of engaging with these services, regardless of the triggers to attend. Nevertheless, future work would benefit from identifying the reasons behind why an individual chooses to engage with community-based services. It could be that these services empower the individual to improve their well-being, or the individual empowers the service to promote well-being. Thus, tracking the longitudinal effects of community facilities as well as sampling new users alongside pre-existing users would be beneficial.

Interestingly, our beta coefficients for social connectedness within Study 1 demonstrated an unexpected result. More specifically, our beta coefficient for history of activity use and social connectedness is -18 and for social connectedness and current activity use is $+18$. Arguably, these figures counterbalance each other, therefore suggesting that the more frequently an individual attends activity groups the more socially connected they feel. However, the longer a participant reported attending groups – with an emphasis on the past tense – the more participants felt less connected. This is an important argument for the investigation of the longitudinal effects of activity groups on existing and new users, something that the authors intend to investigate moving forward. Furthermore, it would be interesting to follow a new user's journey, who has been directed to the community space through social prescription, documenting the motivation and triggers to engage with the service, as well as the effect of

engagement over time. Finally, it must be noted that our study has a disproportionate representation of older adults within this study (participants >57). However, this is representative of a large proportion of library users and thus highlights the importance of libraries across the lifespan (Hughes, 2017).

In summary, this paper has identified several ways through which libraries and community-based service enhance the well-being of users. These services offer a unique environment for individuals to connect with others, develop social assurance and enhance their well-being. Future work would benefit from examining user's motivations for engaging with these services and tracking the journey of new users. Thus, it is concluded that community spaces, such as Suffolk Libraries, promote individual and collective well-being within their communities.

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Author contribution

NC managed the project and partners, AM conceived the theoretical work, AM drafted the manuscript, KB undertook all data collection, and KB, NC and SR assisted in the writing.

Data availability statement

Data are available on request to the corresponding author.

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