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Who wants more social contacts? A cross-sectional study of people with psychotic disorders in England

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A B S T R A C T

Many people with psychosis have few social contacts which can significantly reduce quality of life. While the symptoms of psychosis are thought to contribute to social isolation, they could also lead to the perception that patients are uninterested in increasing their social contacts or in socialisation interventions. Hence, those who most need support to reduce isolation may be less likely to receive it. Despite this, studies have yet to identify the characteristics of patients who do and do not want to increase their social contacts. A cross-sectional study was conducted with 548 participants with psychosis in community mental health teams across England, covering urban and rural areas. Logistic regression analysis was used to determine predictors of wanting to vs. not wanting to increase social contacts. Content analysis was used to explore reasons. The majority (68%) of participants reported a desire for more social contacts, which was significantly associated with lower quality of life. While people with lower quality of life were more likely to express a desire for more contacts, they were less likely to feel confident in increasing them. Reasons for not wanting to increase contacts were related either to perceived barriers or to feeling content with current circumstances. It may be concluded that people with psychosis who have a lower quality of life and little confidence in socialising have a greater desire for more social contacts. Hence, contrary to traditional beliefs, they are likely to be motivated to engage with support to reduce isolation if it is offered.

1. Introduction

Many people with psychosis have few social contacts outside home or health services (Giacco et al., 2016; Harley et al., 2012; Palumbo et al., 2015). Having few social contacts has been increasingly recognised as an independent risk factor for poor mental and physical health (Pantell et al., 2013; Holt-Lunstad et al., 2010). Patients with fewer social contacts tend to have higher levels of symptoms (Giacco et al., 2012; Norman et al., 2005; Bengtsson-Tops and Hansson, 2001), more hospitalisations (Norman et al., 2005) and increased chance of relapse (Pinto, 2006).

The low number of social contacts associated with psychosis could be, at least in part, attributed to their illness. Their symptoms may lead to an "active social withdrawal", for example because of paranoid ideation (Perivoliotis and Cather, 2009) or a "passive social withdrawal" due to negative symptoms (Blanchard et al., 1998; Giacco et al., 2012; Palumbo et al., 2015). This is accompanied by the perceived stigma and the actual discrimination that people with schizophrenia often encounter (Lim et al., 2018; Romm et al., 2012; Birchwood et al., 2006; Pallanti et al., 2004).

The notion of social withdrawal could lead to the assumption that those who have fewer contacts do so because they are uninterested or unwilling to engage in socialisation. Patients with worse clinical and social outcomes can be viewed as difficult to engage in psychosocial interventions in general (Dixon et al., 2016), and supported socialisation interventions in particular (Barbato et al., 2007; Harley et al., 2012).

This may mean that those who are most in need of support to reduce their isolation are less likely to receive it. Despite this, little is known about the characteristics of those who do and do not want to increase their social contacts.

In this cross-sectional study we interviewed a sample of patients with psychosis across a number of urban, semi-urban and rural areas in England about their quality of life, current social contacts, interest in increasing their social contacts and thoughts about doing so. We sought to establish whether current quality of life and number of social contacts differed according to whether or not respondents wanted to increase their social contacts and whether they felt confident in doing so.

Our specific research questions were:

1. Are quality of life and number of current social contacts associated with willingness to increase social contacts?
2. What are the reasons people give for wanting to or not wanting to increase their social contacts?

2. Methods

The study was given approval after review by the West Midlands – Solihull Research Ethics Committee (17/WM/0191).

2.1. Design

This cross-sectional, mixed-methods study was conducted in community mental health teams across England, covering urban, semi-urban and rural areas.

2.2. Participants

Participants were recruited from six participating NHS trusts: Cornwall Partnership NHS Foundation Trust; Devon Partnership NHS Trust; East London NHS Foundation Trust (covering East London, Luton and Bedfordshire); Oxford Health NHS Foundation Trust (covering large areas of Oxfordshire and Buckinghamshire); Somerset Partnership NHS Foundation Trust; and Tees, Esk and Wear Valleys NHS Foundation Trust (covering county Durham, Darlington, Teeside, York and North Yorkshire).

In order to be eligible for the study participants had to: i) be 18–65 years old, ii) have a diagnosis of a psychosis-related condition (ICD-10 F20–29), iii) be receiving care from outpatient secondary mental health services, iv) have the capacity to provide informed consent and v) the ability to communicate in English.

2.3. Procedures

Eligible participants were identified from the caseloads of community mental health teams across the participating trusts. Researchers screened all patients attending an outpatient clinic on a given day throughout the recruitment period. Those meeting the criteria were invited to meet with a researcher who explained the study to them in more detail. Participants were asked to provide written informed consent prior to any assessments being undertaken.

2.4. Measures

The assessment was administered by a trained researcher and consisted of open and closed-ended questions as well as validated questionnaires.

Socio-demographic characteristics were collected; including age, sex, ethnicity, relationship status, living arrangements, accommodation, highest level of completed education, employment status and receipt of benefits. Clinical characteristics including diagnosis and years since first contact with mental health services were also collected.

Subjective quality of life (SQOL) was measured using the Manchester Short Assessment of Quality of Life (MANSA) (Priebe et al., 1999) which asked participants to rate on a scale from 1 (couldn't be worse) to 7 (couldn't be better) how satisfied they were with different aspects of their life. The mean score of the 12 items was calculated to determine SQOL.

This was followed by a measure of social contacts in the previous week using the Social Contacts Assessment (SCA) (Giacco et al., 2016). A social contact was defined as a named person that the participant had a conversation with that was more than just a greeting and not directly related to work, it did not include people the participant was living with or mental health professionals. Participants were asked to list the contacts and state the type of relationship they had with that contact, the method of communication (i.e. face to face, phone, messaging or email) and the number of days they had contact with them.

Willingness to expand social networks was explored using a series of closed and open-ended questions. Participants were asked, "Are you interested in having more social contacts (going out and meeting new people)?" The following options were provided; "Yes I wish to meet new people and am confident I can", "Yes I wish to meet new people but I am not confident I can" or "No I do not think I will ever wish to meet new people". They were then asked if anything had made it difficult for them to meet new people and what they believed could help them to meet new people. This was followed by a brief description of a trial that would test a new intervention to support people to increase their social contacts. Participants were asked if they would consider taking part in such a trial and to give a reason for their answer.

2.5. Analysis

Descriptive statistics were used to describe social contacts, participant characteristics and MANSA score. Desire to increase social contacts was expressed as an absolute number and percentage in response to the question "Are you interested in having more social contacts (going out and meeting new people)?"

In order to explore whether quality of life and current social contacts were associated with wanting to or not wanting to increase social contacts, binary logistic regression models were used. Firstly, interest in increasing social contacts was dichotomised into "wants to increase social contacts" and "does not want to increase social contacts". Socio-demographic variables were dichotomised based on the outcome of the descriptive statistics i.e. the majority response. Ethnicity was dichotomized as "White British"; "not White British", relationship status as "single"; "not single", living situation as "living alone"; "not living alone", accommodation as "independent accommodation"; "not independent accommodation", education as "tertiary"; "not tertiary", and employment as "unemployed"; "not unemployed". Secondly, we tested socio-demographic variables as potential confounders if they were significant at $p < .10$ level in multivariable models. Finally, we entered all variables showing an association with the dependent variable (wanting to increase social contacts/not wanting to) in a multivariable logistic regression model.

Significant characteristics identified in the multiple regression model were further explored in relation to wanting more social contacts. ANOVA tests were used to determine whether there were differences in characteristics between those who said "Yes I wish to meet new people and am confident I can", "Yes I wish to meet new people but I am not confident I can" or "No I do not think I will ever wish to meet new people".

Open-ended questions were analysed using content analysis and the procedures outlined by Elo and Kyngäs (2008), with a view to establishing participants' reasons for wanting to or not wanting to increase their social contacts. This allowed patterns in the data to be recognised through grouping together responses that conveyed similar meaning (Elo and Kyngäs, 2008). Responses to the following questions were analysed together: "Has anything made it difficult to meet new people so far?" "Do you have any ideas of what could help you with meeting new

people?" "Would you consider participating in a trial <to increase social networks> and what are your reasons?" Authors H.T and D.G independently analysed the data and applied descriptive labels consisting of a single word or phrase to data items pertaining to the research question. Responses directly relating to taking part in a research project rather than increasing social contacts were not included. Similar labels were grouped together and given a title to reflect the content. These identified themes and subthemes were checked and agreed upon through discussion between HT and DG.

3. Results

3.1. Sample

Between June 2017 and May 2018, 548 participants with psychosis were recruited. Data from 13 participants were excluded from the analysis due to insufficient completion of the measures leaving 535

Table 1
Socio-demographic and clinical characteristics ($N = 535$).

Age, mean (SD)	43.5 (10.9)
Sex, female, N (%)	184 (34.4)
Ethnic group, N (%)	
	340 (63.6)
- White British	36 (6.7)
- Black/Black British – African	33 (6.2)
- Black/Black British – Caribbean	30 (5.6)
- Asian/Asian British - Bangladeshi	16 (3)
- Asian/Asian British - Pakistani	15 (2.8)
- Asian/Asian British – Indian	15 (2.8)
- White Other	
Relationship status, N (%)	
	402 (75.1)
- Single	65 (12.1)
- Married	37 (6.9)
- Divorced	13 (2.4)
- Co-habitating/civil partnership	7 (1.3)
- Widow/widower	6 (1.1)
- Separated	
Living situation, N (%)	
	246 (46)
- Living alone	186 (34.8)
- Living with family	90 (16.8)
- Shared accommodation	8 (1.5)
- Living with friends	
Accommodation, N (%)	
	392 (73.3)
- Living in independent/unsupervised accommodation	114 (21.3)
- Living in supported accommodation	6 (1.1)
- Homeless	19 (3.6)
- Other	
Highest level of education, N (%)	
	233 (43.6)
- Tertiary/further education	223 (41.7)
- Secondary education	40 (7.5)
- Primary education or less	
Employment status, N (%)	
	375 (70.1)
- Unemployed	58 (10.9)
- Voluntary work	19 (3.6)
- Student	31 (5.8)
- Employed part-time	20 (3.7)
- Employed full-time	
Receiving state benefits, N (%)	473 (88.4)
Diagnosis	
	365 (68.2)
- Schizophrenia, N (%)	3 (0.6)
- Schizotypal disorder, N (%)	12 (2.2)
- Delusional disorder, N (%)	14 (2.6)
- Brief Psychotic Disorder, N (%)	83 (15.5)
- Schizoaffective disorder, N (%)	34 (6.4)
- Psychosis NOS, N (%)	
Years since first contact with mental health services, mean (SD)	17.6 (10.7)
MANSA score, mean (SD)	4.5 (0.9)

participants with data to be analysed. Socio-demographic and clinical characteristics are summarised in Table 1.

3.2. Who wants to increase their social contacts?

Sixty-eight percent of participants indicated that they would be interested in increasing their social contacts (Table 2). Of those who expressed an interest in increasing their social contacts, 53.6% did not feel confident in doing so.

Univariate analysis showed an association between a worse quality of life and interest in increasing social contacts. A lower number of social contacts and willingness to increase them did not show a statistically significant association, but only a trend towards an association (Table 3).

Univariate analyses of potential confounders found significant associations for age, ethnicity, relationship status, level of education and years since first contact with mental health services. It was decided that age and years since first contact with mental health services were sufficiently similar that one variable should be removed to reduce the risk of co-linearity ($r = 0.646$, $n = 472$, $p < .001$). As age showed the least significant association in the univariate analyses it was excluded from the final model.

In a multivariable logistic regression analysis, lower MANSA score was associated with wanting more social contacts (B = -0.358, $p = .010$), while no significant associations were found for ethnicity, relationship status, level of education, years since first contact with mental health services or number of social contacts in the past week (Table 3). Multicollinearity statistics were used to demonstrate that the variance inflation factor (VIF) for all tested variables was <1.2, indicating no collinearity was present.

A one-way between subjects ANOVA was used to compare the effect of wanting to increase contacts and feeling confident in doing so, wanting to increase contacts but not feeling confident in doing so and not wanting to increase contacts on MANSA score (Table 4). There was a significant effect of wanting more social contacts but not feeling confident on MANSA score (F(2, 465) = 19.65, $p < .001$). Bonferroni testing indicated that the mean MANSA score for those who expressed "I wish to meet new people but I am not confident I can" (M = 4.22, SD = 0.88) was significantly lower than for those who said "I wish to meet new people and am confident I can" (M = 4.74, SD = 0.97) and those who said "I do not think I will ever wish to meet new people" (M = 4.76, SD = 0.84). There was no significant difference between those who said they wanted more contacts and felt confident that they could and those who did not wish to have more contacts.

3.3. What are the reasons for wanting to or not wanting to increase social contacts

Themes and sub-themes identified in the content analysis are summarised in Table 5. Reasons for wanting to increase social networks were related to i) taking part in activities or doing more things, ii) socialising with other people, and iii) wellbeing or growth.

Reasons for not wanting to increase social contacts were related to i)

Table 2
Social contacts ($N = 535$).

Social contacts within previous week	
Mean (SD)	2.9 (2.6)
Median	2
Mode	1
Wants to increase social contacts, N (%)	364 (68)
- I wish to meet new people and am confident I can	169 (31.6)
- I wish to meet new people but I am not confident I can	195 (36.4)
Does not want to increase social contacts, N (%)	104 (19.4)

Table 3

Univariate and multiple logistic regression models for wanting to vs. not wanting to increase social contacts.

	B	*p*	CI for odds ratio (95%)	
			Lower	Upper
Univariate logistic regression models				
Sex	−0.239	0.316	0.493	1.257
Benefits	−0.576	0.150	0.257	1.231
Relationship status	0.482	0.048**	1.005	2.608
Level of education	0.514	0.027**	1.059	2.637
Accommodation	−0.142	0.579	0.527	1.431
Living situation	0.095	0.673	0.708	1.706
Employment	0.046	0.849	0.650	1.689
Ethnicity	0.404	0.074**	0.962	2.333
Diagnosis	−0.002	0.879	0.978	1.020
Age	−0.018	0.079**	0.963	1.002
Years since first contact with mental health services	−0.023	0.032**	0.957	0.998
Number of social contacts in past week	0.092	0.066**	0.994	1.210
MANSA score	−0.364	0.004*	0.543	0.888
Multiple logistic regression models				
Relationship status	0.504	0.060	0.979	2.797
Level of education	0.186	0.460	0.736	1.972
Ethnicity	0.377	0.149	0.874	2.431
Years since first contact with mental health services	−0.022	0.061	0.957	1.001
Number of social contacts in past week	0.081	0.126	0.977	1.203
MANSA score	−0.358	0.010*	0.533	0.917

* $p < .05$.
** $p < .1$.

Table 4

MANSA score ($N = 468$).

MANSA, mean (SD)	
	4.74 (0.97)
- I wish to meet new people and am confident I can	4.22 (0.88)
- I wish to meet new people but I am not confident I can	4.76 (0.84)
- I do not think I will ever wish to meet new people	

not feeling the need, and ii) perceived barriers.

4. Discussion

4.1. Main findings

The study findings suggest that people with psychosis who have a lower overall quality of life are more likely to show interest in increasing their social contacts. However, they are also less likely to feel confident in being able to do so. There is also a statistical trend for people who have fewer social contacts to be more willing to increase them.

The association between poorer quality of life and a greater wish to increase social contacts is, to our knowledge, a novel finding. On the other hand, the fact that most participants reported a lack of confidence in increasing their social contacts has been reported in the literature (Romm et al., 2012; Birchwood et al., 2006; Pallanti et al., 2004). It has been reported that people with psychosis and comorbid social anxiety have lower levels of self-esteem and social functioning (Romm et al., 2012), are more likely to internalise stigma (Birchwood et al., 2006), and use more avoidant safety behaviours (Romm et al., 2012; Pallanti et al., 2004). These two findings, taken together, suggest that it is not that people are unwilling, but rather that they may not feel able to increase their social contacts. Hence, assumptions that active or passive social withdrawal are indicative of a disinterest in socialising are not confirmed by our findings.

Our qualitative findings may provide new evidence to the long-standing debate on the causes of social withdrawal in psychosis, which

has focused the role of symptoms (Pallanti et al., 2004). While difficulty trusting people or lack of motivation may be related to the impact of positive and negative symptoms, participants also cited a number of other barriers, particularly not feeling confident or worrying about past negative experiences. These may be more easily targeted by psychosocial interventions. Participants also gave a number of reasons for their willingness to engage in a trial to increase social networks, such as a wish to develop confidence and social skills, increase friendships, integrate into the community, achieve positive change and increase their wellbeing. This suggests an appetite for supported socialisation interventions among people with psychotic disorders.

4.2. Strengths and limitations

The strengths of this study lay in its large sample size and efforts to include participants from a range of geographical locations (urban, semi-urban and rural). People living in more densely populated areas tend to have more social contacts (Latané et al., 1995; Preciado et al., 2012; Small and Adler, 2019), and more socially deprived areas tend to be associated with increased loneliness (Kearns et al., 2015). These areas also have higher rates of psychosis (Kirkbride et al., 2008; O'Donoghue et al., 2016) so the impact of the wider environment on levels of social isolation cannot be ignored. A further strength is the systematic screening of caseloads. Researchers regularly attended outpatient clinics throughout the recruitment period; on these days all attending patients were screened for eligibility to minimise selection bias.

There are several limitations. Firstly, with regards to the representativeness of the sample; all those who took part in the survey were under the care of secondary mental health services. They were therefore receiving some degree of support and engaging to a certain extent with healthcare services and contacts with professionals. People who are more difficult to engage in care or who do not meet the criteria for secondary services may also be more socially isolated as they have less opportunity for support or intervention. There were also those who declined to take part in the study or to speak to a researcher at all, raising the possibility that those who accepted the invitation could have a higher tendency towards being open to social contacts. However, a selection bias is more likely to have influenced the absolute numbers and percentages of people with psychosis wanting more social contacts (or not) rather than the associations of this with other variables. It is well established that associations between variables tend to be more robust towards selection bias than prevalence estimates (Etter and Perneger, 2000).

Secondly, measures of social contacts were based on self-report from patients and may be influenced by recall bias or differing views on what constitutes a social contact. A precise definition of 'social contact' was provided, which should have reduced biases but perhaps not completely eliminated them.

Furthermore, responses to the question asking about reasons for wanting to or not wanting to increase social contacts are potentially confounded by the wording. Participants were read a summary of a proposed intervention that would support people to increase social networks and were asked if they would consider participating in such a trial along with their reasons why. Reasons given that were directly pertaining to being involved in a research study (e.g. "I want to help with research") were excluded during the analysis but it is still possible that some answers were influenced by discussing social contacts in the context of a research project. This also opens the possibility of social desirability bias which could have led to an over-estimation of the number of people who want to increase their social contacts. In effort to reduce this bias, researchers explained that participation in the present research was voluntary and there were no right or wrong answers to the assessments and questionnaires. It was also emphasised that as the intervention was still in development, it would be helpful for researchers to hear from people who may not want to take part and their reasons why.

Table 5
Themes, sub-themes, and example quotes.

Reasons for wanting more social contacts (177 reasons)		
Taking part in social activities or doing more things (46)	Engaging in social activities to overcome boredom (13)	"Get us out of the house a bit more" "Keep me busy" "To get out the house and have something different to do"
	Developing social skills and learning new things (33)	"The chance to improve my sociability skills "Interesting to learn new things and have other things to think about" "Doing something new and it could be interesting"
Socialising with other people (92)	Increasing friendships (43)	"To meet new people, make new friends" "To increase my social network (mostly family at the moment, would like some friends)." "Just to make new friends"
	Feeling lonely because of having become socially isolated (24)	"I used to do lots of things but now I'm very isolated." "I want to find new friends because I don't have that many." "Want to meet new people; I'm very lonely."
	Integrating into the community (3)	"About helping people integrate into the community." "I want to feel part of the community." "I'm interested in my condition and social inclusion."
	Developing helpful contacts (22)	"Find people like myself who have also become quite isolated and have similar experiences to me (e.g. medication)." "Looking to work on healthy relationships." "Maybe meeting other people like myself would get help to work things through together."
Wellbeing or personal growth (39)	Building confidence (13)	"It would help to meet the public and to become confident." "To increase confidence." "Help me get to know other people and build my confidence up to try activities and explore the world and life more."
	Believing social activities will help their wellbeing (13)	"Get back to how I was before I became ill, used to be more confident/sociable." "Would like to do things, would make life more interesting, would put me in a better mood and would contribute to mental welfare." "To help me and my wellbeing."
	Wanting a change (13)	"To make changes in my life and in the practice of doing things; to break from routine." "I'm starting to see that if I don't do these things then nothing will change, it can only help." "I think it would be good to break my usual routine and do new things and make life worth living."

Reasons for not wanting more social contacts (121 reasons)		
Feeling content with current circumstances (73)	Not wanting more social contacts (9)	"I don't really want any more social contacts." "I'm not particularly bothered about meeting new people." "Prefer not to."
	Happy as I am (17)	"I'm alright with what I've got. Family and my friend V are all I need; I don't want to meet any new people." "I'm happy with my life as it is; I don't want to meet new people."
	Feeling they don't need help with increasing their friendships/social contacts (32)	"Don't really feel like I need more support meeting people; now creating my own social networks." "I don't feel like I need help as quite confident meeting people, I have a lot of friends and am very sociable." "Quite confident and ready to make new friends, know myself now."
	Having other priorities (15)	"I tend to have quite a lot going on anyway." "Too busy, family commitments." "Not sure I have the time as I am mostly at work."
Perceived barriers (48)	Not trusting people (9)	"Don't really like going out if I don't have a friend with me as I feel paranoid; I don't trust other people." "People are evil so I don't want to spend time with people." "I don't like strangers. Don't really want to meet people who I don't trust."
	Having had bad experiences in the past (4)	"If things hadn't happened I could form relationships with others; I'm not comfortable going to see people who haven't suffered from serious mental health problems." "Does not want to make new friends through mental health services […] in the past has found other service-users only want something from me rather than genuine friendship." "I end up meeting people with mental health issues but these friendships aren't useful to me."
	Not feeling confident (18)	"Would not feel comfortable in that situation." "Don't like meeting strangers, I feel scared." "Not confident in meeting new people, likes to keep himself to himself."
	Feeling a lack of motivation (3)	"Because I didn't have the motivation to do these things." "Not active, seems a lot of effort." "Problem with me is things are a lot of effort, putting more activities on top of that makes for more tiredness."
	Feeling too unwell because of physical or mental health problems (14)	"I don't really want to meet new people as the voices do not want me to, and they affect my concentration." "I have a lot of physical health problems so I find it difficult to go out independently." "Paranoia is the biggest barrier."

4.3. Implications

This study has implications for both research and health and social care services working towards reducing social isolation in people with psychosis. Firstly, those who have lower overall quality of life should be given the opportunity to engage in interventions which help them to socialise. Such interventions should consider that people who may want to take part in them, likely also have dissatisfaction in other areas of

their life. This may mean added complexity which could make attempts to socialise more difficult. An awareness of these complexities and strategies to overcome them may make efforts to support patients more successful. Secondly, lack of confidence and anxiety around socialising appear to emerge, both from our study and the previous evidence (Romm et al., 2012; Birchwood et al., 2006; Pallanti et al., 2004), as crucial factors in influencing the development of social isolation in people with psychosis. The priority in this area should be to develop the means to support those who wish to expand their networks but do not feel confident in doing so. Thirdly, the majority of participants did report wanting more contacts. The exact absolute numbers and percentages may have been influenced to some extent by a selection bias; however, a substantial proportion of people with psychosis with low quality life and little confidence to increase their social activities appear particularly motivated to engage in interventions that may help them to socialise more. This means that such interventions are likely to be taken up by those who need them most. These findings should encourage the development and testing of specific interventions to build the confidence of people with psychosis to socialise and help them to increase their social networks and activities.

5. Conclusion

People with psychosis who have a lower quality of life are more likely to want to increase their social contacts and less likely to feel confident in doing so. They may be open to engaging in interventions which help to build and maintain confidence with socialising as they are exposed to more social contacts.

Credit authorship contribution statement

HT led on analysing and interpreting the data, writing the manuscript and was involved in data collection. DG assisted with the analysis and contributed to the writing of the manuscript. AC contributed to the writing of the manuscript. SP provided oversight of the analysis and write-up. PX contributed to data collection and reviewed the manuscript. MW provided ongoing advice on data collection and analysis. All authors read and approved the final manuscript.

Declaration of competing interest

None.

Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.schres.2021.11.047.

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