

Are you 18-75 years old and a current or previous user of social media (e.g., Facebook and Instagram) and/or online dating sites (e.g., Tinder og Dating.dk)? Then we invite you to participate in this survey.

Social media and online dating sites have become increasingly popular in recent years. Nevertheless, only few studies have explored the interplay between affective disorders (depression and bipolar disorder/manic-depressive disorder) and the use of social media and online dating.

The purpose of this survey is to establish whether persons with affective disorders have a different use of social media and online dating sites than persons without these disorders. Therefore, we need both persons with affective disorders and persons without affective disorders to complete the questionnaire. The questionnaire consists of three parts: the first part is about your background and your mood, the second part focuses on social media, and the third part concerns online dating.

Two groups are invited to participate in the survey:

- 1) Persons aged 18-75 years who are current or previous users of social media and/or online dating sites and who receive treatment at the Clinic for Mania and Depression (outpatient clinic) at Aarhus University Hospital in Risskov.
- 2) Persons aged 18-75 years who are current or previous users of social media and/or online dating sites and who receive treatment at Vorgod Lægehus or Lægerne Borggade (family practitioners).

It should be stressed that:

- Participation in the survey is voluntary
- Your choice about participation will have <u>no</u> influence on your treatment
- Your treatment provider may not read your responses
- We kindly ask you to participate only once in this survey
- By participating, you consent to sharing your data for research purposes

The results of the study will be published in an international scientific journal. The results of the study will only be presented at group level. Thus, it will not be possible to identify any individual persons in the published material. The study has been approved by the Danish Data Protection Agency in accordance with the procedures laid down between the Danish Data Protection Agency and the Central Denmark Region.

We hope that you will participate and thereby contribute to this research project.

Professor Søren Dinesen Østergaard, Specialist Psychologist Krista Straarup, Specialist Psychologist Vibeke Hansen, Physician Clara Reece Medici, and Medical Student Klara Rydahl

Part 1: your background and your mood

1. Age and sex (Please state your age at the line below and indicate your sex by circling the appropriate)

____year Female Male

2. Were you born in Denmark?

Yes	
No	

3. What is your current marital status?

Single	
Have a partner, but live alone	
Cohabiting	
Married	
Divorced/separated	
Widow/widower	

4. Do you have children?

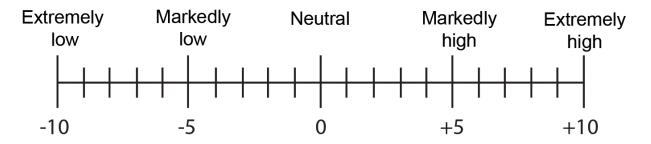
No	
Yes, living at home	
Yes, joint custody*	
Yes, living away from home the parental home	

^{*} Joint custody means that you have children who alternately live with you and the other parent.

5. What is your highest level of completed education?

Public school (7-9 years of schooling)	
High school or similar level	
Vocational training	
Short tertiary education (less than 3 years of study)	
Medium tertiary education (3-4 years of study)	
Long tertiary education (more than 4 years of study)	

6. How has your mood (spirits) been on average during the past three days? (Please put a cross on the line)



7. Have you ever had a depression that was diagnosed/treated?

No	→	If no: go to item 9
Yes, a single episode		
Yes, 2-5 episodes		
Yes, 6-10 episodes		
Yes, more than 10 episodes		

8. How old were you when your first-time depression was diagnosed/treated?

Below 18 years	
18-24 years	
25-34 years	
35-45 years	
Above 45 years	

9. Have you ever experienced a manic* or hypomanic episode** that was diagnosed/treated?

No	→	If no: go to item 11
Yes, a single episode		
Yes, 2-5 episodes		
Yes, 6-10 episodes		
Yes, more than 10 episodes		

^{*} Manic episode: Period with exaggerated/inappropriate elevated mood/anger, intensely increased energy level, and extremely high activity level. May require admission to a psychiatric hospital.

10. How old were you when your first-time manic or hypomanic episode was diagnosed/treated?

Below 18 years	
18-24 years	
25-34 years	
35-45 years	
Above 45 years	

11. Have you ever experienced a bipolar mixed episode (where manic/hypomanic and depressive symptoms were intermixed or rapidly alternating) that was diagnosed/treated?

No	→ If no: Go to item 13 on page 4
Yes, a single episode	
Yes, 2-5 episodes	
Yes, 6-10 episodes	
Yes, more than 10 episodes	

^{**} **Hypomanic episode**: Period with milder type of mania with persistently elevated mood, increased energy level, and increased activity level

12. How old were you when your first-time bipolar mixed episode was diagnosed/treated?

Below 18 years	
18-24 years	
25-34 years	
35-45 years	
Above 45 years	

Part 2: Social media - the interplay between use of social media and mood

13. Have you ever used one or several social media?

(e.g., Facebook, Instagram, Twitter, YouTube, Snapchat, or similar)

Yes		
No	→	If no: Go to item 40 on page 9

14. When did you – for the first time – register as a user on a social media?

Less than 1 year ago	1-2 years ago	3-5 years ago	6-8 years ago	9 years or more ago

15. How much time did you spend daily (on average) on social media in the periods when you used these media? (Please indicate on the lines)

hours og minu

16. In the period(s) when you used social media, what did you use them for?

(You may tick several boxes)

Chatting with friends/family/acquaintances	"Following" friends/family/acquaintances
Writing updates	Reading updates from others
Posting photos	Seeing photos
Posting videos	Watching videos
Participating in debates	Reading the news
Finding new friends	Finding information about others
Setting up arrangements and events	As a calendar (arrangements, events, birthdays, etc.)
Participating in "groups" (based on interests)	Following celebrities and public figures

17. Have you ever regretted an	v of the following actions on t	he social media?(You may	tick several boxes)
Trillare You ever regretted an	V OI LIIC IOIIOVVIIIE ACTIOIIS OII L	ile social illeala. (loa illa	V CICK SEVELUI BOXES

Writing private messages	
Sending photos privately	
Sending videos privately	
Posting photos publicly	
Posting videos publicly	
Writing public post	
Nej	

18. Have your family, friends, or acquaintances ever told you that they found your behavior on the social media inappropriate and/or transgressive?

Yes, often	
Yes, sometimes	
No	

19. Has your use of social media ever had negative influence on your relations with other people (e.g., family relations, boyfriend/girlfriend, friendship, work life, or similar)?

Yes, often	
Yes, sometimes	
No	

20. To what extent do your profile(s)/postings on the social media reflect your real life?

My profile(s)/postings on the social media generally present my life as...

Much more positive than real life	Slightly more positivet han real life	About the same as real life	Slightly more negative than real life	Much more negative than real life

21. To what extent do other people's profile(s)/postings on the social media reflect their real life?

Other peoples' profile(s)/postings on the social media generally present their life as...

Much more positive than real life	Slightly more positivet han real life	About the same as real life	Slightly more negative than real life	Much more negative than real life

Items 22-25 should only be answered if you have had one or several episodes of depression in the period when you used social media. If this is not the case, please go to item 26 on page 6.

22. Have you experienced that your time consumption on social media changed during your depression(s)?

Yes, during a depressive episode I become more active	
Yes, during a depressive episode I become less active	
No, I experienced no change	

23. Did you use any of the following functions/activities on social media <u>less</u> during your depression(s)? (You may tick several boxes)

Chatting with friends/family/acquaintances	"Following" friends/family/acquaintances	
Writing updates	Reading updates from others	
Posting photos	Seeing photos	
Posting videos	Watching videos	
Participating in debates	Reading the news	
Finding new friends	Finding information about others	
Setting up arrangements and events	As a calendar (arrangements, events, birthdays, etc.)	
Participating in "groups" (based on interests)	Following celebrities and public figures	

→ 24. Did you use any of the following functions/activities on the social media more during your depression(s)? (You may tick several boxes)

Chatting with friends/family/acquaintances	·	"Following" friends/family/acquaintances	
Writing updates		Reading updates from others	
Posting photos		Seeing photos	
Posting videos		Watching videos	
Participating in debates		Reading the news	
Finding new friends		Finding information about others	
Setting up arrangements and events		As a calendar (arrangements, events, birthdays, etc.)	
Participating in "groups" (based on interests)		Following celebrities and public figures	

25. Do you find that your symptoms during af depression generally are increased/worsened or reduced/ relived by your use of social media?

Increased/worsened to a high degree	Increased/worsened to a mild degree	No difference	Reduced/relieved to a mild degree	Reduced/relieved to a high degree

Items 26-38 should only be answered if you have had one or several manic or hypomanic episode(s) in the period when you used social media. If this is not the case, please go to item 40 on page 9.

→ 26. Have you experienced that your time consumption on social media changed during your manic or hypomanic episode(s)?

Yes, during a manic/hypomanic episode I become more active	
Yes, during a manic/hypomanic episode I become less active	
No, I experienced no change	

→ 27. Have you used any of the following functions/activities on the social media <u>less</u> during your manic or hypomanic episode(s)? (You may tick several boxes)

Chatting with friends/family/acquaintances	"Following" friends/family/acquaintances	·
Writing updates	Reading updates from others	
Posting photos	Seeing photos	
Posting videos	Watching videos	
Participating in debates	Reading the news	
Finding new friends	Finding information about others	
Setting up arrangements and events	As a calendar (arrangements, events, birthdays, etc.)	
Participating in "groups" (based on interests)	Following celebrities and public figures	

→ 28. Have you used any of the following functions/activities on the social media more during your manic or hypomanic episode(s)? (You may tick several boxes)

Chatting with friends/family/acquaintances	"Following" friends/family/acquaintances
Writing updates	Reading updates from others
Posting photos	Seeing photos
Posting videos	Watching videos
Participating in debates	Reading the news
Finding new friends	Finding information about others
Setting up arrangements and events	As a calendar (arrangements, events, birthdays, etc.)
Participating in "groups" (based on interests)	Following celebrities and public figures

→ 29. Do you find that your symptoms during a manic or hypomanic episode are generally increased/worsened or reduced/relieved by your use of social media? (You may tick several boxes)

Increased/worsened to a high degree	Increased/worsened to a mild degree	No difference	Reduced/relieved to a mild degree	Reduced/relieved to a high degree

→ 30. Have you ever regretted one or several of the following actions because you used social media during a manic or hypomanic episode? (You may tick several boxes)

Writing private messages	
Sending photos privately	
Sending videos privately	
Posting photos publicly	
Posting videos publicly	
Writing public post	
Nej	

If no: Go to item 34 on page 8

s, often		
es, sometimes		
lo		

Apologized to one or several people	
Deleted posts, photos, or videos	
Reduced my activity on social media	
Tried to forget it	
Closed my account	
None of the above	

→ 33. If you have regretted one or several of the actions above (item 30), do you believe that this contributed to the onset of a subsequent depressive phase?

Yes	
No	

34. Have you experienced that your behavior on social media during a manic or hypomanic episode caused negative thoughts in a subsequent depressive phase?

Yes	
No	

→ 35. Have your family, friends, or other acquaintances ever told you that they found your behavior on the social media inappropriate and/or transgressive?

Yes, often	
Yes, sometimes	
No	

→ 36. Has your use of social media during a manic or hypomanic period ever had negative influence on your relations with other people (e.g., family relations, boyfriend/girlfriend, friendship, work life, or similar)?

Yes, often	
Yes, sometimes	
No	

Items 37-39 should only be answered if you have been admitted to a psychiatric ward in connection with one or several manic episode(s) in the period when you used social media. If this is not the case, please go to item 40.

→ 37. In connection with your admission(s) for treatment of one or several manic episode(s), have you experienced that the staff limited your access to telephone, tablet, and computer so that you did not have free access to social media?

Yes		
No	→	If no: Go to item 39

38. Did you experience that this limited access to the social media had a negative or a positive effect on the course of your disease?

Very negative effect	Somewhat negative effect	No effect	Somewhat positive effect	Very positive effect	

→ 39. Do you wish that the staff had limited your access to social media to a lesser or greater extent than was the case?

To a much lesser extent	To a lesser extent	No, it was suitable	To a greater extent	To a much greater extent

Part 3: Online dating sites/apps – the interaction between use of dating sites/apps and mood

40. Have you ever used online dates sites/apps?

(e.g., Dating.dk, Be2.dk, Tinder, Happn, Grindr, or similar)

Yes	
No	If no: The remaining questions are not relevant, and you have finished
	completing the questionnaire. Thank you for your help.

41. When did you – for the first time – register as a user on an online dating site/app?

Less than a year ago	
1-2 years ago	
3-5 years ago	
6-8 years ago	
9 years or more ago	

42. How much time used these sites/ap	-	-	ily (on average) on online dating sites/apps in the period when you se on the lines)
hours and	d m	inutes	
43. In the period(s) (You may tick severa	-	ı used da	ating sites/apps, what did you use them for?
Finding a romantic p	partner		
Getting approval			
Finding new friends			
Finding a sexual part	tner		
44. Have you ever r You may tick severa		any of th	e following actions on online dating sites/apps?
Writing private mess	sages		
Sending photos priv	ately		
Sending videos priva	ately		
Writing public post			
Posting photos publ	icly		
Meeting a person			
Having sexual interc	course		
No			
-	-		r acquaintances ever told you that they found your behavior - in ing sites/apps - inappropriate and/or transgressive?
Yes, sometimes			
No			
NO			
			s/sites ever had negative influence on your relations with other nd/girlfriend, friendship, work life, or similar)?
Yes, often			
Yes, sometimes			
No			

Items 47 and 48 should only be answered if you have had one or several episodes of depression in the period when you used online dating sites/apps. If this is not the case, please go to item 49.

47. Have you experienced that your use of online dating sites/apps changed during you depression(s)?

Yes, during a depressive episode, I become more active	
Yes, during a depressive episode, I become less active	
No, I experienced no change	

 48. Do you find that your symptoms during a depression generally increased/worsened or reduced/ relieved by your use of online dating sites/apps

Increased/worsened to a high degree	Increased/worsened to a mild degree	No difference	Reduced/relieved to a mild degree	Reduced/relieved to a high degree

The remaining items should only be answered if you have had one or several manic or hypomanic episode(s) in the period when you used online dating sites/apps. If this is not the case, the remaining questions are not relevant, and you have finished completing the questionnaire. Thank you for your help.

→ 49. Have you experienced that your use of online dating sites/apps changed during your manic or hypomanic episode(s)? (You may tick several boxes)

Yes, during a manic/hypomanic episode I become more active	
Yes, during a manic/hypomanic episode I become less active	
No, I experienced no change	

→ 50. Do you find that your symptoms during a manic or hypomanic episode are generally increased/worsened or reduced/relieved by your use of dating sites/apps?

Increased/worsened to a high degree	Increased/worsened to a mild degree	No difference	Reduced/relieved to a mild degree	Reduced/relieved to a high degree

▶ 51. Have you ever regretted one or several of the following actions because you used online dating sites/apps during a manic or hypomanic episode? (You may tick several boxes)

Writing private messages	
Sending photos privately	
Sending videos privately	
Writing public post	
Posting photos publicly	
Meeting with a person	
Having sexual intercourse	
No	

If no: Go to item 55

→ 52. If you h mood nega	_		one or seve	eral actions	s abo	ov€	⁄e	e (it	iten	n 51	1), c	did it	t sub	sequ	uent	ly ir	ıfluer	nce yo	our
Yes, often																			
Yes, someti	mes																		
No																			
→ 53. If you h (You may ti	_	-	l one or seve	eral of the	actio	on	าร	s al	bov	/e (i	iten	n 51), ha	w di	id yo	ou h	andle	e it?	
Apologized	to one	or seve	ral people																
Deleted po	sts, pho	tos, or	videos																
Reduced m	ny activit	ty on so	ocial media																
Tried to for	rget it																		
Closed my	account																		
None of th	e above																		
_	-		d that your ubsequent d	_					ring	g a r	mar	nic o	r hyp	oom	anic	epi	sode	cause	ed
Yes																			
No																			
consequen	ce of a	ctivity	ends, or oth on online dansgressive?	ating sites,							-			_		_			or - in
Yes, often																			
Yes, somet	imes																		
No																			
	n your	relatio	ne dating ap ons with oth	-	_						_	-		-				_	

Yes, sometimes

No

The remaining items should only be answered if you have been admitted to a psychiatric ward with one or several manic episode(s) in the period when you used online dating sites/apps. If this is not the case, the remaining questions are not relevant, and you have finished completing the questionnaire. Thank you for your help.

→ 58. In connection with your admission(s) for treatment of one or several manic episode(s), have you experienced that the staff limited your access to telephone, tablet, and computer so that you did not have free access to online dating sites/apps?

Yes	
No	→ If no: Go to item 60

→ 59. Did you experience that this limited access to online dating sites/apps had a negative or a positive effect on the course of your disease?

Very negative effect	Somewhat negative effect	No effect	Somewhat positive effect	Very positive effect

→ 60. Do you wish that the staff had limited your access to online dating sites/apps to a lesser or greater extent than was the case?

To a much lesser extent	To a lesser extent	No, it was suitable	To a greater extent	To a much greater extent

Thank you for your participation

Professor Søren Dinesen Østergaard Specialist Psychologist Krista Straarup Specialist Psychologist Vibeke Hansen Physician Clara Reece Medici Medical Student Klara Rydahl

Aarhus University Hospital- Psychiatry, Denmark