Like Me, Like My Psychiatry: How Psychiatrists present their professional identities on Instagram

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Abstract

Objective: Social media platforms like Instagram gained a popularity for healthcare professionals to reach potential clients and patients. This study aims to reveal the nature of Instagram use of psychiatrists in Turkey.

Methods: Instagram search function for hashtags and username was used to find psychiatrists who use public accounts. A search between 15.10.2020 – 15.11.2020 were conducted with keywords psikiyatri and psikiyatrist (Turkish words for psychiatry and psychiatrists). A total number of 241 accounts from physicians were reached and after exclusion criteria 124 accounts are included in the study and 30758 total posts were analyzed. Descriptive parameters of the accounts and contents of the shared posts are analyzed and classified further.

Results: Female users consisted 49.2% of the sample and male users consisted of 50.8%. 52.4% of all psychiatrists were from one of the seven regions of Turkey and 40.3% of all accounts based in one city, Istanbul. Most of the users had a title of specialists (78.2%) and worked predominantly in private practices (66.9%). Almost half of the sample has explicitly stated to offer online therapy option and 10.5% of all accounts posted patient info. Sex therapy was the most common area of specification, followed by couples & family therapy, EMDR and CBT.

Conclusion: Instagram use patterns of psychiatrist from Turkey reveal important insights between socioeconomic factors and psychiatry practice. Our findings reveal that Instagram helps colleagues to reach public and to adjust their practice according to the feedbacks from Instagram community.

Instagram; social media; psychiatry

INTRODUCTION

As one of the most popular social media platforms among Facebook, Twitter, Pinterest etc., Instagram allows users to share photos, videos and live contents with their followers and/or with the Instagram community. Latest statistics predict that there are more than 1 billion Instagram users worldwide and it is expected to increase [1]. Turkey ranks as sixth in means of total Instagram users with a number of 44 millions [1], although it has the rank of 17 with a population more than 84 millions [2]. This situation may be interpreted as an inclination of Instagram use in Turkish population and similar data are also available for other popular social media platforms.

There are several studies exploring health and medicine related topics in Instagram. Although studies in this topic are mostly consisted of analysis of contents from general population, there

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are an increasing number of studies on the social media or specifically Instagram usage of health care professionals[3]. Among these studies Youtube seems to be most used and studied medium of medical information sharing between healthcare professionals and social media users [4]. Additionally there are some studies regarding content analysis of Facebook or twitter accounts of medical professionals [5]. Nevertheless, Instagram too seems to become one of the major mediums to study the content of health related posts, both from professionals or from the community.

Although there is a wide range of studies on Instagram content analysis from various medical fields, contents from dermatological and plastic & reconstructive surgical posts are leading this area of research. Park et al have analyzed dermatology related hashtags in Instagram and found that most of the content related to dermatology are from nonprofessional accounts [6]. Furthermore their results indicate that certified dermatologists tend to share posts mostly regarding to self-promotion. Relatedly Braunberger et al showed that patients with dermatological problems share their lesions in Instagram and seek help and they conclude that Instagram may serve a medium to enhance patient education and information sharing [7]. Similarly Dorfman et al found in their hashtag analysis study, that certified plastic and aesthetic surgeons are underrepresented in Instagram and suggest this platform as a useful tool for education and marketing [8]. Another line of research come from clinical infectious diseases related subjects as there are studies suggesting Instagram as a creative tool to detect infectious diseases earlier and to help developing more specific policies [9].

Studies related to Instagram and psychiatry consist of mostly content analysis of posts from public and focus on early detection of various psychiatric conditions. Muralidhara et al classifies mental health as one of the ten most shared Instagram post topics in their study on selfies with health hashtag [10]. A line of research also focuses on the risks and possible dangers of Instagram mentality, as concerns about Instagram use and body image and body dysmorphic disorder (BDD) are increasing. Ryding et al suggest in their review article that frequent use of social media networks including Instagram may be seen as a potential risk factor for development of BDD symptoms [11]. There are also several studies try to detect various psychiatric conditions based on Instagram contents. Researchers are repeatedly reporting predictive role of Instagram posts for depressive mood and depression [12,13]. Moreover several studies focus on suicide and non-suicidal self-harm related Instagram posts from adolescents and adults and try to predict suicidality in aim of developing early intervention strategies [14]. Similar reasonings of Instagram content analysis studies are implemented for addiction and related subjects [15].

Despite the fact that there is a rich literature on psychiatric content analysis and posts of non-psychiatric medical professionals, there has been no study found on content analysis of Instagram posts of psychiatrists up to date.

MATERIAL AND METHODS

In purpose of minimizing the effects of search algorithms of Instagram, a new account was opened by the authors. Prior to Instagram search all history including caches and cookies were deleted from the devices and a newly downloaded internet browser was used. Two types of searches conducted regularly on daily basis between 15 October 2020 and 15 November 2020. Contents and accounts from hashtags psikiyatri (Turkish word for psychiatry) and psikiyatrist (Turkish word for psychiatrist) were analyzed. Also "psikiyatrist" was used to reach accounts by the username search.

After the hashtag and username searches a total of 241 number accounts from medical professionals are found. Among them 32 accounts belonged to child and adolescent psychiatrists, 15 to non-psychiatrist medical doctors, mainly general practitioners and neurologists, 11 were psychiatry residents and 6 accounts were from institutional accounts and therefore excluded. 9 accounts belonged to psychiatrists who were more of a public figure than a medical professional and identified themselves as writer, TV programmer, publisher or political figure.

Among the remaining 168 accounts, 3 were inactive more than 1 years, 14 accounts had less than 10 posts and therefore excluded, 9 accounts consisted of posts mainly languages other than

Turkish (English, German, Arabic, Persian and Azerbaijani). There were 6 accounts, which were fan/parody pages or had highly suspicious activity and classified as fake accounts. 2 accounts had an explicit wording in biography to label their accounts as "only personal use".

After the exclusion of above-mentioned accounts, a total number of 124 accounts remained and analyzed further. The included accounts are confirmed through the official email list of The Psychiatric Association of Turkey (PAT) in means of names and corresponding email addresses.

Since there were no human subjects or animals participated in this study, approval form ethics committee was not required.

STATISTICAL ANALYSIS

Statistical analyses were conducted by using IBM SPSS Statistics 24 (SPSS IBM, Chicago) program. The analysis of distribution was evaluated by Kolmogorov-Smirnov and Shapiro Wilks tests. Independent samples t-test was used for normally distributed continuous variables and Mann-Whitney-U test was used as nonparametric test for continuous variables. Categorical variables were analyzed with the Chi-Squared Test. Pearson correlation analysis was used to determine the correlation between the continuous variables. Statistically significance was accepted as p-values below 0.05.

RESULTS

A total number of 124 accounts, with 30758 total posts were analyzed. Of the 30758 posts 27857 were photos and 3101 were videos. There were 681 stories from 124 accounts fixed to the users profile. Our study group consisted of 61 female users (49,2%) and 63 male users (50,8%). The geographical distribution of accounts within the Turkey was: 50 (40,3%) from Istanbul, 12 (9,7%) from İzmir, 10 (8,1%) from Ankara, 8 from Bursa, 7 from Antalya and 6 from Adana. The rest of the accounts were from 18 other cities. One

account did not specify the location data. We also analyzed geographic distribution in means of 7 regions of Turkey and the following results are revealed; 65 accounts were from Marmara region (52,4%), 17 from Aegean Region (13,7%), 15 from Middle Anatolia and 15 from Mediterranean (12,1%), 7 from Black Sea (5,6%), 4 from Southeastern Anatolia (3,2%). One account had no geographical data. None of the accounts were from the region of Eastern Anatolia.

Number of specialists among the study group was 97 (78,2%). 10 (8,1%) users had an academic title of professor, 9 (7,3%) users were associated professor and 8 (6,5%) users were assistant professor.

83 (66,9%) colleagues had identified their practice as private practice, 27 (21,8%) were employees of private hospitals and 13 (10,5%) were employees of state-owned hospitals (community hospitals or university clinics). One user did not specify a workplace. Accounts were also classified if they offer online therapy/interview and 58 (46,8%) users explicitly specified to have an online practice. Of 124 accounts, 13 (10,5%) had a post revealing a patient info, either photo or a message, letter etc.

We have also tried to reveal areas of specifications of the users. 45 (36,3%) psychiatrists had no data to ascribe any specific area of interest. 36 (29,0%) of all users had a specification on sex therapy as an area of interest. The rest of the specifications have distributed as following; 29 (23,4%) users specialized in couples and/or family therapy, 29 (23,4%) users in CBT, 29 (23,4%) users in EMDR, 9 (7,3%) users in addiction, 6 users in supportive psychotherapy, 6 users in hypnosis, 5 users in trauma,5 users in bipolar disorder, 5 users is psychoanalytic psychotherapy/psychoanalysis, 4 users in depression, 4 users in TMS, 3 users in schizophrenia, 3 users in panic/panic disorders, 3 users in psychodynamic psychotherapy, 3 users in psychodrama, 3 users in anxiety disorders, 3 users in ACT, 2 users in OCD, 2 users in sleep 2 users in ADHD, 2 users in group therapy, 2 users in schema therapy, 1 user in interpersonal therapy, 1 user in forensic psychiatry, 1 user in women's mental health (See Tab 1).

Table 1. Profiles of participants

Variable		Number of Participants
Sex	Female	61(49.2%)
	Male	63 (50.8%)
Title	Specialist	97 (78.2%)
	Prof. Dr	10 (8.1%)
	Assoc. Prof.	9 (7.3%)
	Prof. Dr.	8 (6.5%)
Region	Marmara	65 (52.4%)
	Aegean Region	17 (13.7%)
	Middle Anatolia	15 (12.1%)
	Mediterranean	15 (12.1%)
	Black Sea	7 (5.6%)
	Southeast Anatolia	4 (3.2%)
	Not Specified	1 (0.09%)
	East Anatolia	0
Type pf Practice	Private Practice	83 (66.9%)
	Private Hospital	27 (21.8%)
	State Owned	13 (10.5%)
	Not Specified	1 (0.09%)
Online Therapy	Yes	58 (46.8%)
	No	66 (53.2%)
Patient Info	Yes	13 (10.5%)
	No	111 (89.5%)
Major Areas of Specification	Sex Therapy	36 (29.0%)
	Couples/Family	29 (23.4%)
	CBT	29 (23.4%)
	EMDR	29 (23.4%)
	Not Specified	45 (36.3%)

Prof Dr: Professor Doctor; Assoc Prof: Associated Professor; Assist Prof: Assistant Professor

CBT: Cognitive-Behavioral Therapy; EMDR: Eye Movements Desensitization & Reprocessing

Analysis of Content

Mean duration of Instagram usage was 33,52 (SD=23,49) months. Mean number of followers per account was 2950,06 (SD= 3860,66). Accounts followed 581,68 (SD=656,73) accounts on average. Our study group had shared 248,14 (SD=305,55) posts on average, 224,74 (SD=74) of them were photos and 25.01 (SD=42,45) were videos. Average number of selfies per account was 31,50 (SD=69,92). Accounts had an average of 5,45 (SD=12,44) stories fixed to their profiles.

Accounts in the current study had an average of 126,88 (SD=138,11) likes per post and 3,29 (SD=2,96) comments per post. Mean number of likes per selfie were 175,34 (SD=105,39) and comments per selfie were 7,41 (SD=8,31). Shared videos had 1068,83 (SD=1966,40) number of watch and 3,68 (SD=4,55) comments on average.

Users posted 27,38 (SD=49,04) quotes on average, mean for self-quote was 13,09 (SD=37,10) and for quotes from others was 14,29 (SD=21,73). An average of 59,03 (SD=80,68) posts had an educational content, 17,53 (SD=31,09) were advertisements and 28,22 (SD=67,19) were photos of family members and/or social milieu. Mean number of educational material prepared by the users themselves were 47,04 (SD=72,29) and from other sources were 11,84 (SD=14,87)

The comparison of contents between sexes are presented in Table 2. Although there seem to be differences between parameters, none of them reached to level of statistical significance.

Table 2. Comparison of Continuous Variables Between Female and Male Users

Parameters	Female (n=61) Mean (SD)	Male (n=63) Mean (SD)	Max.	Min.	P value[1]
Number of Followers	2564.18 (3541.44)	3323.68 (4140.46)	19.000	107	0.274
Number of Followings	589.21 (519.24)	574.39 (771.11)	4543	0	0.900
Number of Total Posts	232.09 (246.91)	263.68 (354.57)	1481	18	0.565
Number of Photos	211.19 (235.04)	237.85 (333.61)	1457	0	0.607
Number of Videos	20.86 (30.90)	29.03 (51.17)	280	0	0.283
Number of Stories Fixed	6,34 (12.66)	4.60 (12.25)	92	0	0.438
Total Months of Use	31.22 (24.37)	35.74 (22.57)	99	2	0.287
Likes per Total Posts	116.32 (71.51)	137.10 (180.77)	1365.15	10.2	0.400
Comments per Total Posts	3.58 (2.97)	3.01 (2.95)	17.82	0	0.286
Likes per Selfies	189.41 (110.10)	161.27 (99.37)	565.00	0	0.141
Comments per Selfies	8.35 (7.95)	6.47 (8.62)	54	0	0.213
Number of Selfies	38.27 (91.54)	24.95 (38.74)	651	0	0.297
Selfie/Non-Selfie Ratio	0.13 (0.14)	0.11 (0.12)	0.64	0	0.360
Number of Total Quotes	22.47 (30.06)	32.14 (62.05)	390	0	0.270
Number of Self Quotes	8.93 (18.43)	17.12 (48.66)	356	0	0.216
Number of Quotes from Others	13.54 (16.86)	15.01 (25.70)	156	0	0.706
Number of Educational Materials	59.68 (76.85)	53.39 (84.84)	463	0	0.929
Number of Advertisements	13.52 (17.84)	21.41 (39.72)	256	0	0.155
Number of Family/Social Photos	25.78 (49.29)	30.58 (81.19)	451	0	0.690

[1]: Independent samples t-test

Correlation analysis

The correlation of continuous variables like number of selfies and selfie / total post ratio showed a strong relationship between most of the parameters as expected. Nevertheless number of selfies seemed to more correlated with other parameters than selfie / total post ratio as shown in Table 3.

Table 3. Correlations Between Selfie Numbers and Other Continuous Variables

		Nr of Followers	Nr of Following	Months of Use	Educational Material	Family/ Social	Like per TP	Like per Selfie	S/TP ratio
Number of Selfies	r	0.559**	0.312*	0.497**	0.222*	0.722**	0.452**	0.376**	0.699**
Selfie/Total Post Ratio	r	ns	ns	0.222*	0.319**	0.351**	0.286**	ns	1

*: p < 0.05. **: p < 0.01
Nr: Number S: Selfie TP: Total Posts
Ns: nonsignificant; nonsignificant r values are not numerically specified.

DISCUSSION

This current study tried to profile psychiatrists from Turkey, who have public accounts on Instagram and used hashtags or profile names related to psychiatry. One of our major findings is that majority of psychiatrists in Instagram have their own practice or work in private hospitals. Although there is no reliable statistics to compare this finding, it is a well-known reality that most of the psychiatrists work in public healthcare facilities like state hospitals or university clinics. This data can be interpreted as a sign of advertising role of Instagram and it can be inferred that colleagues work in private sector need to reach more audience. This finding is in line with the suggestions of other studies which underline the role of Instagram for healthcare professionals in a context of marketing [8]. It may also be related to our other major finding of uneven distribution of sampled psychiatrists in means of work areas. More than 40% of our study sample was based on Istanbul, although this metropole have a share of 18.66% of general population of Turkey [16]. This trend was also found in means of regional distribution of the study sample, as 52.4% of the colleagues were located in Marmara region, which holds approximately 30% of Turkey's population. In line with this finding, there were no accounts from East Anatolia region, which has the lowest population as region, approximately 6 millions of people. This finding should also be interpreted in light of distribution of wealth among the geographical regions and cities of Turkey. Statistics show that Istanbul has 40.749 TL as Gross Domestic Product (GDP) per Capita compared to 28.552 TL of

average in Turkey [17]. So it may be suggested that psychiatrists who work in private sector tend to be located in the richest parts of Turkey and try to more to reach public through Instagram. This relationship was also apparent from the findings of other regions; for example, Aegean Region is the fourth from seven in means of population but the second richest region in means of GDP per Capita and also second in means of psychiatrists using public Instagram accounts in our study. These findings should be discussed with the fact of limited number of psychiatrists in Turkey. Studies show that there are a total number of 2854 psychiatrist and an average of 3,8 psychiatrists per 100.000 population in Turkey, a significantly low number compared to European Union, which has an average of 16.8 psychiatrists per 100.000 population [18].

Another finding deserves to be discussed is the specifications of the colleagues in our study sample. It has been found that 63.7% of our study sample ascribed one or more specific area of interests in their Instagram profiles. These specifications were strictly ascribed, when it is only specifically mentioned in the biography sections of Instagram pages and were not categorized according to contents of posts. Despite this strict criterion, we think that psychiatrists tend to identify themselves with an area of interest, mostly a psychotherapeutic approach. Although there is no relevant data from Turkey to compare these findings, research from different countries show that there is a unique pattern of specification of psychiatrists using Instagram in Turkey. Almost every third subject (29.0%) in the study explicitly identified him/herself as a sex therapist. Similarly Couples/Family therapy,

EMDR and CBT were the most prevalent area of specifications among the study sample. Contrary to these findings, studies from other countries show predominance of psychoanalytic orientation among the mental health professionals [19,20]. This finding may also be related to socio-economic aspects of using public Instagram pages, as all these four types of therapy orientations can be classified as practical and outcome-oriented approaches. This type of specifications may be more relevant in the private practice or in private hospital settings, as clients tend to be inclined to have psychotherapy rather than psychopharmacological treatments. This is also obvious when we see how few psychiatrists identified themselves with the most prevalent psychiatric disorders like schizophrenia, depressive disorders or anxiety disorders.

One of the interesting findings from the current study was the prevalence of online therapy practice among the colleagues. Almost half of the study sample explicitly specified that they offer online therapy. This finding should be discussed in light of the zeitgeist of the continuing COVID-19 pandemic. Several medical fields tried to adjust their daily practices compatible with online meetings and psychiatry and psychotherapy are two major fields to lead such practices [21]. Therefore, it may be suggested that COVID-19 pandemic may encourage colleagues to get involved in social media, Instagram in this case, and try to reach clients through online therapy possibilities. This conclusion may also be supported with our finding that 19 of 124 (15.32%) accounts were opened after the COVİD-19 pandemic, namely after January 2020.

Ethical concerns about the use of social media by healthcare professionals are getting more attention [22]. Our study showed that 10.5% of psychiatrists using public Instagram accounts shared patient info, which may be seen as violation of patient confidentiality. These information were mostly picture, letter or messages from patients whose identity was easy to be discovered. Therefore, we believe that associations, chambers or authorities should also serve as a regulatory function in means of ethical violations in social media use of colleagues. This issue deserves specific attention regarding the legal regulations from authorities and recommendations from professional associations about the advertisement ban and doctor-patient confidentiality. In Turkey there is an official regulation which bans physicians to engage any kind of advertisements regarding medical profession [23]. Further, both The Psychiatric Association of Turkey and Turkish Medical Association urge colleagues to strictly comply with the doctor-patient confidentiality and advertisement ban [24,25]. Nevertheless, findings from the current study shows that significant portion of colleagues violate both confidentiality and advertisement ban.

Analysis of contents from our samples' Instagram posts also reveal important findings and insights. Although none of the analyzed data has reached the level of significance, we may conclude that sex plays a role in type of posts in Instagram. For example, although male users shared more posts, female users tend to share more selfies, and selfies from females are more likely to have attention in means of likes or comments. In contrast, male users tend to share more quotes, especially quotes of their own. Similarly, male users are inclined to share more posts which can be classified as advertisements. We believe that difference of conception of Instagram between sexes is a futile area of research and may serve important insights for the future, therefore should be studied in different samples of healthcare professionals.

Another result from the current study to be mentioned is the share of educational materials in Instagram posts of the users. Although there was a difference between female and male users (25.71% for females 20.24% for males), educational materials consisted of 23.78% of all posts, both pictures and videos. Thus, the share of educational material was more than selfies, advertisements or family/social pictures. Therefore it can be stated that, one of the main motivations for psychiatrists to use Instagram as a medium to transit psychoeducational material, for public and also for other mental health professionals and this conclusion seems to be in line with other studies [8].

Our study has certain limitations. First of all, we ascribed sexes of the users only by analyzing the photos of them. Although there was no user specifically identified him/herself other than male/female binary classification, it may

be inconvenient to assume genders of the users only with their photos. Another limitation of the study was that we had no tools or methods to detect and exclude interactions other than organic users. It may be well speculated that some of the accounts may have tried to buy followers, likes etc., but it was not possible to exclude this type of data. Finally, our sample consisted of accounts only from Turkey and contents in Turkish. This geographic and linguistic restriction may limit generalizability of our results.

CONCLUSION

Findings from the current study revealed that there is a unique way of Instagram use among psychiatrists in Turkey. User were prominently working in private sector, either private practice or private hospitals, and based mostly in western regions and cities which can be regarded as the richest parts of Turkey. Moreover, a distinctive pattern of specialization was apparent among the accounts, as sex therapy, couples & family therapy, EMDR and CBT were the most reported types of therapeutic orientation. Finally gender of the users were also influential on types of posts, females tend to share more selfies and males share more self-quotes and advertisements.

Declaration of interest:
The authors reported no conflicts of interest related to this article.

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