Use of Photo-Elicitation Interviews To Understand Schemas Among University Students: An Explorative Study

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Abstract

The present study aims to understand how people with anxiety/depression differ in viewing the world in comparison to individuals who do not have these psychopathologies. Participants engaged in the process of constructing the stimuli and then also interpreting it in their interviews. There were ten participants out of which five had anxiety/depression and other five did not. Participants were screened for anxiety/depression and where asked to engage in a simple activity of clicking photographs based on the scenarios that were provided. They were also interviewed based on what they clicked and their photographs as well as interviews were analysed. Interviews were analysed using thematic analysis and photographs were analysed using semiotics. Results showed that people with anxiety/depression avoid proximity and capturing faces/emotions. It was also observed that participants often had photographs connected to a past event and for them photographs were means to release their feelings and thoughts in an abstract manner.

Introduction

The use of photo-elicitation as a measure to understand phenomena in disciplines of sociology and anthropology has been widely studied. The process of using images along with questions in an interview to extract information is called photo-elicitation [1]. There have been variety of studies done across social sciences, not just psychology, using this technique to understand the visual information. Photographs can be used by researchers to extract information from the participants, this process is defined as photo-elicitation interviews [2]. Visual aids that are atypically used could be random scenic beauty pictures, family albums that carry meaning or videos questions such as "Who is this person? Who am I?" are frequently used. Photo elicitation technique uses information in the form of feelings, moods, and memoirs, based on the photograph's perspective.

By the introduction of participant-driven photographs, or other visual stimuli, the researcher attempts to capture the experiences (including emotions, feelings, ideas and other subjective things) of the participants, instead of imposing the researcher's framework or perception of a topic. The purpose of the images is to promote dialogue and potentially introduce new dimensions to the research that the researcher has not considered. It involves participants in a way that does not limit responses, which may be especially important for groups such as children and creates a 'comfortable space for discussion' [3]. The difference between interviews solely reliant on words and those including pictures, is in understanding why people respond in a given way to such representation; images are thought to connect with a deeper sense of the human consciousness than words [4].

Words may not be able to capture a wide range of information about the concept that we may be studying [5]. It is also true that the meaning behind an image may not be obvious and easy to decipher by a simple look at the image [6] and to explore deep embedded meanings in photographs the researcher has to conduct interviews and dialogue [7]. Images along with interviews can lead to more discussion on related aspects [7] and help the respondents to express opinions they may have found hard to articulate through traditional interview methods [8].

Therapeutic photography as a concept and a technique is a product of photo- elicitation and has been well researched and cited in articles using photo-elicitation as a method for data collection [9]. All the interventions focussed on photography, taking some photographs to create a photography product (e.g. medleys, photo albums). Adults and adolescents are targeted using these images-based activities which are practiced in group and individual therapy. These interventions focus on social skills, coping skills, self- esteem, or identity [10].

Schemas are stereotypes/worldview or could be our own held previous beliefs which we are manifesting on the photos or text. When a person writes an article or a piece it will certainly have personal bias of worldview with which he/she writes, or a photographer who clicks photos and engages in the same process. There are schemas deeply embedded and rooted in our brains and our cognitive system that are displayed through art of writing, sometimes explicitly, and through photography which isn't always explicit. Schemas are in themselves not always explicit in nature therefore measures such as photo-elicitation can help to understand a deeply embedded process owing to the flexibility of technique. Smith-Jackson and Hall used cognitive elicitation techniques to capture schemas. A small panel system in a national park was used to assess evidence of common schemas among participants using cognitive elicitation. Wilderness recreation areas would have common schemas that can be apprehended or deduced from preferred orders using mental models' approach [11]. Jenkins saw the schema concept as a possible explanation of how elicitation techniques work. They did not, however, explore the details of how schemata might influence the data elicited, nor did they use the

schema concept to consider how to improve elicitation techniques [12].

Bartlett showed that not only recall of data over time but also how new schemas or 'Schemas foreign' are analysed, are affected by an individual's prevailing schemata and typecasts. Individuals are likely to observe things that fit into their representation; they also 'recall' objects that they expect to see but that were not present [13]; and they ignore or just do not notice things that do not fit their schema. The schema provides a framework for action and thought. It triggers implicit and explicit processes such as interpretations, emotions and behaviour. Schemata underlie our explicit thoughts, verbal behaviour and motor-sensory actions. Examples include automatic behaviour such as driving a car.

The aim of the present study was to understand how individuals who had anxiety/depression and who did not was there a difference in the way they see the world? Does being affected by a particular psychopathology also affect your perception? We also aim to trace certain schemas by interpreting both interviews and photographs. Do the individuals have a certain level of awareness about their cognitions/ interpretations? Does the process of this activity induce any awareness or elicit certain memories?

The goal of the research is to triangulate the information obtained from the participant with scientific interpretations drawn by the researcher. The individual clicks the photograph and then provides the rationale and interpretation of the photograph in the interview. The participant is the one generating the stimulus and also interpreting it. The photographs are then analysed by the researcher using semiotics to triangulate the objective findings with the information supplied of the photographs in the interview. Participants are expected to capture something based on the themes provided which is unique and specific to a particular individual. There are two sets of participants one group is the so called normal (not affected by anxiety and depression) and others are (individuals affected with anxiety/depression).

There have been few researches that have been doing using photo-elicitation to understand schemas and psychopathologies. Photo-elicitation is commonly seen in English and linguistic research but is now slowly being used to study concepts of general psychology like self-efficacy and self-concept. The use of the methodologies is largely negligible or absent in both clinical and neuroscience/cognitive research. These methodologies are largely qualitative in nature and the focus of both neuroscience and clinical practice is to establish figures and generalisations therefore quantitative researches/experiments/ clinical trials are more commonly found in these domains rather than qualitative researches.

In the present study participants were given scenarios and were supposed to click pictures based on themes which was also accompanied by a small interview to understand their interpretations of the photographs. The participants generated the stimuli and were the ones who interpreted it. The photographs were also interpreted by the researchers using semiotic analysis. The photographs were arranged and coded based on some parameters such as accuracy to the theme, subject's importance in the frame, depth of field, realm captured and vanishing point. According to the arrangement of the photographs based on these dimensions there were certain interpretations that were made.

Therefore, the interpretations drawn from the photographs convey a lot about how people with anxiety/depression and those who are not affected by these psychopathologies view the world. We are also able to generate some patterns that are common across all participants which means there are certain ways in which all of us see the world in a similar manner. If we bring in the interpretations drawn from the interviews it will help us provide a backing and a more solid understanding of how things look. If we know how participants perceive their own photographs, we can use that to support our findings made from the photographs using semiotics.

Literature Review

Erdner suggested that to help patients with prolonged mental illness and make them share more about their lives; images have been used as a data-collection method [14]. Photo elicitation involves the participants to go out and click photographs which are discussed later in a photo-elicitation interview. Participants who had depression had to click 12 pictures in response to the question Who am I? repertory gird also had to be filled out, this helped to assess their self and future self [1]. Another research required the participants to click 12 photographs that depicted a story of themselves in present or future, it will be followed by verbal self-analysis. It will be an exercise for self-understanding, and it goes beyond explicit meaning which opens avenues for new possibilities and perspectives. It helps an individual develop a new meaning towards life and transformed images indicate control to guide further action [15]. In usual researches, there is a power dynamic between the researcher and the participants, photo-elicitation provides a completely fresh outlook. Interviews were photographs are missing relying totally on verbal evidence and only researchers frame of reference is used which can bring in personal bias. When photographs are used that break the researchers frame actually have a more impact on the researcher than the participants [3]. The researcher's implicit assumptions and beliefs about a topic are challenged. It is a widely used technique in sociology and anthropology but largely underutilised in psychology, and only gained prominence after 1990's.

Photo-elicitation can be defined as a method in which researchers elicit information from the participants through photographs. The photos that were selected had some significance for the participants so that they could later discuss their interpretations. There are some variations to the original photo-elicitation method which are done by the researchers these include

- Using current photos of research setting or topic.
- Using previous photos of research settings or topic.
- Archival photos.
- Photos that were taken previously and had no connection to research [16]. Banks stated that photo-elicitation interviewing fosters exploration and extended responses, revelation and empowering interactions.

Atypical to Veronica's experience, decontextualized photo-sets were used along with photo-elicitation. This means using photos that may not be necessarily attached to participants background, topic or research. Photographs can be used as substitutes for verbal response elicitation, are less time consuming. Visual options and supplementary language acted as symbolic understandings by the participants. For example, images of roads and dirt tracks were used in an interview by a participant to express his viewpoints of himself as a learner and a teacher. The potential of conveying intrinsic meaning became evident when Veronica realized several participants were choosing the same images and the linguistics used in their explanations showed similarities. Shared or related texts or dialect conveying analogous

ideas were used although the participants used images to explain their understanding of different subjects, queries, or attitudes; using common or related words and sentences or language to convey similar ideas [16].

Photographs are incorporated into the interview process while using a qualitative research method and it is called photo-elicitation. Use of photo-elicitation with international students has been minimal although images have been used for a prolonged period in field research. Focus groups and semi-structured interviews reinforced the disparities between school in Saudi Arabia and a school in the United States. A female participant had taken a photo of male English teacher, signifying that this was the first time she had ever studied with a male teacher (there was also a photo of a male participant and his female teacher). Other photos were of technology, some of them had seen snow for the first time, lived in areas where is rained a lot and photographs of themselves studying. Students brought set of photographs that showed what they felt contributed to their success, this was also validated in their interviews. Photographs included one of the clock towers on college campus, another student explained that the photograph conveyed that successful student is one who manages his time well. Then there were photos of the library, of the study groups, and the participating students shown studying, implying that a good student is one who can manage his/her time effectively [17].

Lehna and Tholcken requested participants to click images of specific aspects of their life, to demonstrate their penned work as student nurses with families [18]. Rapport, Doel and Jerzembek requested from community pharmacists a two-page biography about their workplace, after they had secured images of their workplace [19]. The biographies were not meant to elaborate on the photographs but to provide a deeper meaning which wasn't visible explicitly. Dockett and Perry requested children to imagine about what is imperative for new pupils when beginning school, the students were put in groups and they took images and to supplement each photograph textual comments were to be given by the students [20]. In this study, group discussions were done before clicking the pictures about what should be in the picture and why. After the images were taken another round of dialogue was conducted on what text should supplement the images as text [21].

Rampton sorted images into types/themes, which were later enumerated thematically in terms of the number and percentage of photographs and then into theme, category and sub category [22]. Sampson and Gifford analysed images that they found were pasted in "Settlement journals" by refugee children [23]. They then created lists of photographs for the places that appeared in the photographs along with whether the refugee children marked them as liked or disliked along with written comments from the participants. Dockett and Perry in their research used phot books as their unit of analysis [20]. These photo books were created by children of photos taken of their school along with a brief writes up. Lehna and Tholcken studied experience of nursing students, using multiple methods of analysis, to come out with case management experiences [18].

Therapeutic nature of images is a method involving study of all aspects including taking photographs, viewing them, presenting and interpretation of the photographs. As a primary or secondary form of counselling [24]. The counsellor views the photograph as having a window into the client's subconscious and unconscious, thereby providing applicability in clinical assessment and treatment [25]. Photographs can be used to investigate thinking and behaviours using a cognitive-behavioural platform; delve into unconscious symbolism

using Jungian thought; identify rationalizations and defence mechanisms as defined by psychodynamic theory; investigate relationships according to systems theories; and provide an alternate form of expression and communication as a coping skill, which increases adaptability as described by resiliency theories [9,26].

The schema concept provides a testable mechanism for how elicitation may function and the conditions under which elicitation might work. Elicitation techniques are characterised by the presentation of an impoverished stimuli or task to which the participant is asked to respond. The aim of such techniques is to elicit responses thatare not normally expressed in discourse. In some uses the techniques specifically target implicit knowledge. There is a very wide range of techniques including: word association, inkblots, drawing pictures and many more. Data collection from elicitation techniques necessarily reflect behaviour or attitudes [27].

Photo-elicitation interview is unlike a traditional semi-structured interview and it includes components of a traditional interview but also incorporates images. These images along with traditional interview help clients to share their issue more freely, such flexibility is often missing in traditional semi-structured interviews [28,29]. The images used in photo-elicitation can either be selected on the basis of those that are clicked by the viewer and discussed with the researcher or that have no connection to the viewer [30]. In both cases, the purpose of the image is to begin a dialogue about the topic of interest or the area in which research is being conducted [28-30].

Burke states that photographs are a reflection of the community in which they are produced rather than seeing them as a reproduction of that time and place. This idea arises from contextual placing of photographs. The same photograph can communicate different meanings if looked at in isolation by different individuals. It may also end up conveying a message the image never wished-for. Sometimes a series of photos provides more perspective in comparison to individual photos and often a series of photos are reliable [31].

When photography was evolving into a mass communication tool, photographs were not meant to communicate directly the horrors of life, rather only collective sentiments and popular perceptions. Some images were staged, they were never the means to record hard facts but were used to display shared sentiments and well-liked perceptions about a milestone event. Photographers were prohibited from clicking pictures of national army under fire or suffering.

During the World War I photographers were officially employed to cover the armed forces. Since then things have changed. Photographs present problems common to all single source data collection methods. They require a lot of details to be considered a valuable source, details such as Who clicked the photograph? When was it clicked? The reason for which they were taken? and so on. Despite these disadvantages' images are a precious tool not only for historians but also many other social science researchers. Photographs provide a fascinating starting point for looking at the past, but are often not a definitive and structured tool at pin pointing and understanding the past [31].

In this study, we observed that felicitating situated values, supporting people's expressing of values and being implemented in value elicitation tool. Photo elicitation can highlight insights about human behaviour that can stay hidden to a researcher. Photo elicitation can be used to discuss pictures selected by the researcher of discuss the pictures selected by the participants. Some aspects such as emotional breakdown, trauma, abuse or relation to experience which makes the individual anxious can arise in the interview, when the

participants click the images and share them in the interview which the researcher might not have considered [32].

Methods

Screening of participants was done prior to handing them out the camera and the interview was taken. Participants were screened from both UG and PG STEM (Science, Technology, Engineering and Mathematics) courses offered by CHRIST University (Deemed to be University). Participants were screened for anxiety/depression using Beck's Anxiety Inventory (BAI) and Beck's Depression Inventory (BDI) and also a General Health Questionnaire (GHQ-12) short form with 12 items for general mental and physical concerns. The students were taken from non-psychology background with the assumption that they would be less in touch with their schemas and more fact oriented since they belong to the scientific disciplines.

Semiotics has been heavily used in communication research and it focuses on creating meanings in daily life using associations between signs and their roles. Semiotics was developed in the late 19th and early 20th century by a Swiss linguist and a North American philosopher named Saussure and Peirce. Saussure was a pioneer in modern linguistics, and he believed that signs had two segments: signifier and signified. Signifier is the visible part and rather more superficially/overt present. Signified is the absent part and is usually more connotative and not so denotative like the signifier. Denotative is the first level of analysis usually the literal meaning. Connotation is deeper and usually has to do more with symbolic and encoded information.

The data for this research exists in two formats which is 5 photographs per participant which means a total of 50 photographs because we have 10 participants in the study and 10 interviews that talk in detail about the process, experiences, early childhood and late adulthood memories and describing the photographs. The participants were allowed to freely describe the photographs to understand their cognitions and feelings/emotions attached to the photograph or the memory it elicited. The photographs were analysed using semiotics which is the art of finding meaning or signs in a photograph. Interviews were also analysed thematically and finding both unique and similar patterns across different photographs and interviews was deemed to be necessary.

Results

Semiotic analysis

Most of the participants went for the themes which were easily approachable and in proximity. It was often driven by convenience, but it seems to be more to do with inclination. Some themes like nature, favourite spot in college and Human relations are more common among almost all participants whereas something like materialistic aspirations was perceived as something negative by most participants. It could also have a cultural interpretation since possessing materialistic goods are often symbolised with greed and being selfish in our community (Table 1).

Most of the participants clicked something specific and accurately depicting the theme. Others captured the literal sense of the theme but had a larger preview to it.

It appears that all the subjects whether affected by a pathology or not did try to keep the subject in focus. They tried to be specific and focussed on what they wished to click. Although sometimes they lost the focus and made the frame way too large. It seems in these cases they tried to position something small in a large perspective. It seems like they are trying to put themselves in the larger perspective of the infrastructure/college and new surroundings. They probably perceive themselves as small in a huge and completely different city or University. Most of the subjects in order to be specific and focussed only ended up capturing a particular subject completely ignoring the background. It was common pattern across people with mood disorders because they tend to be totally focussed on one aspect. They deliberately left out details which could be disturbing and overwhelming.

All participants usually stuck to one particular angle which was from the eye level. This could be probably due to sheer convivence and flexibility on the part of participants. It could be that they felt comfortable clicking from that angle and did not feel the need to explore different angles.

Most of the participants chose landscape mode which gave a huge width, but the length was compromised upon. Even the portraits where taken in landscape which was interesting to see. It provided a background and usually more than half the body while clicking portraits.

Portraits are usually just about the face but for most participants it included other body parts apart from just the emotion and face. Also, people with mood disorders avoided clicking the face and expressions. It could possibly mean they fear emotions. They took these portraits from a distance and either from the back or a side angle which often ended up missing out on the face.

Participants tried to follow rule of thirds most of time but when the subject was defined for them in the theme, they were easily able to capture it using the technique. They were not successful in following rule of thirds when the subject was abstract, and it was difficult to picture it in the theme. All the participants were more focussed on capturing subject with the theme rather than actually following rule of thirds.

Most of the participants who were diagnosed with any mood disorder often maintained distance from the subject. They seem to have issues with proximity and closeness. They also tend to capture a larger perspective and often miss out on detailing and concurrently capturing the moment.

Participants placed the subjects with the background or within the background. Most of the participants found it difficult to make subject prominent. Again, we see an issue with detailing, but this was seen across all participants. They often preferred their subject within a background rather than making it completely pronounced. If they went for detailing it appeared to be too much in the face and distant from the location and frame.

Most of the participants place the subjects with the ground. It seems participants are more familiar with the ground rather than the sky. It is easier for them to relate and capture everything that is there on the ground. Most of the stuff that exists on the ground tends to be similar, but they are positing and angle with which it is taken makes it unique. Also, subjects are placed with ground, but the backdrop is the sky which makes is unique. Realm captured in this sense is both the sky and ground which has a different meaning because their perception seems to be more complex, convoluted and unique. They are able to

combine and assimilate two dimensions which could have multiple meanings.

Most of the photos have basic colour schemes. Since most of the photos have a backdrop of nature green and blue become the predominant colours. Many participants have used black to signify stuff like darkness and giving a different shade to the entire photograph.

Most participants have tried to maintain symmetry and a proper pattern in their photographs. Symmetry is something pretty evident in all photographs. Some of the photographs have symmetry but are unbalanced. These photographs lack proper framing and posturing. Also, sometimes symmetry and balance are completely ignored just to get the subject.

Most of the participants seemed to capture something close to what was expected in the theme but there were others who mixed/confused some concepts. It could be again due to easily availability and convenience or out of sheer misunderstanding. Some participants clicked the main road and college entrance road in the theme streets whereas streets are usually small. They are either disserted or lined up with shops. Also, most participants took buildings in college which are basically blocks. They qualify as buildings, but the theme was more about residential buildings, malls and complexes. There seems to be overlap and sometimes a misidentification of things that are similar yet different. It could also mean that they did not understand the difference or where simply ignorant about what they were clicking. Some of the photographs seem too descriptive and seem to be taken just to justify the theme. These photographs lack depth and seem to be taken to just complete the task at hand.

Since, nature was a predominant theme across all participants there was an affective component towards the theme. Also, the college has a lot greenery and trees which is possibly the reason there is a lot more emotion and interactions with the environment. There seems to be a connect with nature and also an emotional connect with the individual and environment. Also, sometimes the affective component is in the environment only and it is very pleasing to see and relate with the environment which is enough to make one feel better.

Most participants with depression/anxiety found it difficult to capture human beings and have an affective component with them. Also capturing was done from a distance and not from proximity. The pictures sometimes had an affective component but were taken from behind making the relationship ambiguous yet beautiful in a unique way. Also, while capturing portraits and relations participants focussed more on the entire person rather than just capturing the entire face. Also, face was captured mostly from a side profile or down angle. There is relevant research supporting the fact that people suffering from a mood disorder have difficulty with emotions and often form negative self-images of themselves. In the present research there were 60 participants divided into two groups 30 social phobic and 30 non-patient controls. Social phobic formed more negative self-images when they were shown situations that involved social phobia. They also engaged in seeing themselves more from an observer's perspective. Negative self-images are responsible for the maintenance of social phobia. Social phobic and controls did not differ in their ratings of the degree to which they considered their spontaneously occurring images to have been distorted. This could mean that the main difference between social phobic and controls concerns how likely it is that an observer-perspective image will come to mind in a social situation and whether that image is negative, neutral, or positive [33].

Most of the photographs captured either an action or the subject in motion or after it was completed. There is not even one photograph where the subject was taken before taking that action. It shows that there is beauty in process which most people like or a certain sense of permanence that comes with it being complete.

Also, a large number of participants clicked photographs where the subject was missing or was not doing any action. It was either a location or something the participant related to closely. The actions portrayed or subjects captured were something sometimes even the participants aimed or desired for. They did not put themselves in the frame because they feared being captured and often it was something, they felt described them what they were without being actually there. They also captured something that was mostly in process like a conversation or act which could mean that they wanted to be engaged in that activity or conversation as well.

Something which varied across participants but was common across participants suffering from either anxiety/ depression was that they were picking up sub scenarios within a larger scenario that was provided. It means that they were picking up on locations which had associated memories and linkages that often created themselves as images in the mind of the participants. These participants went around to capture these images because these images were laden with specific thoughts and feelings. For e.g. one participant clicked the road from the sky walk for two reasons. The first was this road is the one which takes her back to her home and the second was the sky walk. Sky walk symbolised this new place, the new college which is Christ and which she hated coming to. She wished that this bridge would break down mid-way and she would die. Similarly, for other people the block in college were anchor points if they got lost or if they could not find their own place in this huge campus of concrete and newness.

Something that varied was also how participants decided what aspect made sense to them with respect the larger scenario provided. With some participants they went completely documentative and clicked the broader scenario as it is. For e.g. a participant was given to click sunset and sky and he only clicked the sun. another participant when she was given the scenario nature, she narrowed it down made it specific to flowers and then captured that one specific red flower. Participants in their own head gave different meanings to these broad scenarios there by picking onto specific details or aspects which was interesting to see. This is how every participant generated different photographs for the same broad scenarios.

One thing that was relatively specific to this participant who had moderate depression was that most of his photographs mainly 3 out of 5 had the realms merged which is the sky and the ground. It was difficult for him to separate these two entities and often which clicking these photos he merged the two. While he clicked his favourite spot or the nature it included both the sky and ground which gave a beautiful shade to the photograph but could possibly mean difficulty in differentiation and separating the two entities. In his explanation of his photographs also he explained that he influenced by his mother and sisters. He also told how his mother always taught him to keep other people above him and always help others before helping oneself. This could possibly be an indictive of lack of differentiation of self in the mother child relationship from a Murray Bowen's systems theory perspective which is displayed through an inability to distinguish between the realms.

Human relations as a scenario was one of the scenarios that was interpreted differently across participants and most participants also

tried to capture that scenario. Participants with anxiety/depression kept the subject vague/not so clear or at a distance whereas those who were not suffering from these conditions kept subject specific, but it had different meanings. For some participants it was hard to distinguish between a portrait and human relations. For some participants human relations meant a couple holding hands or it was just two friends sitting and talking on a bench. Some people tried to find their own relationship past or current in these photographs. People suffering from anxiety/depression often avoided the faces and captured such things from the back. Others just went all specific and filled the entire frame making the relationship documentative. Some participants did not really define these relationships but expressed and even captured them as a happy moments and conversations. Participants often clicked strangers and people they did not know but related to them because they had similar relationships or conversations maybe sometime in the past or at the same location.

All the participants were taught rule of thirds but only few participants were able to achieve it in all photographs. Most people positioned the subject in the centre out of sheer convenience and because they wanted the scenario to be documentative. The participants who actually learnt and tried to implement rule of thirds were those who had some prior experience of using a DSLR because others found it difficult to implement something newly learnt when the experience with DSLR was altogether a new experience. Rule of thirds was also mostly moderately achieved which was mostly done to enhance the aesthetics of the photograph. It was often a half-baked effort and achieved sometimes by mistake because it made the pictures more beautiful. It was also moderately achieved because sometimes participants preferred keeping the subject in centre because for them that was more artistically appealing.

Global Theme	Organizing Theme	Basic Theme
Perception of photographs and activity	Engaging with the activity	Experience with camera
		Impression of activity
		Connected of oneself with the photograph
Feelings and memories attached to photographs	Relating photographs with past events and situations	Associating memories with photographs
		Meaning attached to scenarios
	Emotional attachment with photographs	Feelings and thoughts associated while clicking scenarios
Feedback and reworking scenarios	Participant involvement and shareholding	Willingness to capture something relatable in place of current pictures
		Adding to the existing knowledge base
	Perspective taking and exploring options	Understanding and interpreting scenarios from a different lens
		Decoding sub-layers of the same scenario
		Generating possible alternatives, ideas and interpretations to relatively common scenarios
Meaning attached to scenarios	Abstract explanation of photographs	Scenario specific questions
		Favourite scenario
		Both concrete and fluid explanations
		Scenario wise explanation and interpretation
		Understanding how subject understood and perceived the scenario
		Understanding how participants construct the world around them

Table 1: Global, organized and basic themes are shown in the table.

Engaging with activity

Experience with Camera: The participants reported that they found the camera to be heavy at times. Most of the participants had used a full frame camera for the first time during the activity. They were proper training before they were sent out to click pictures which eased the process.

As reported by the participant, *": First of all, the camera was too heavy for me to hold it. Like, my hands started paining after some time. But it was okay, not too much. Then, this lense-thing was too fascinating...like...and the clarity...camera. The experience was awesome".*

Another participant reported that *"First time, the first picture I clicked was blur so I was little terrified that even after focusing how did it come out as blur. So, but then after that I was fine with it. Like I have tried to click as much as I could because I am not a photographer and I am not very familiar with DSLR'S so".*

It seems like the participants were little apprehensive and careful when clicking with DSLR. They had their fears and expectations when they clicked a particular object. Since people use mobile phones and point and shoot camera more these days, they find it hard to use a DSLR. Now gradually people are shifting to mirrorless camera's as well, but clarity is nowhere comparable to a full frame. Participants were only provided with a single lens with the option to zoom in and zoom out between 24-120 mm on full auto without flash mode.

Relating photographs with past events and situations

Associating memories with photographs: The participants reported that they tend to relate memories with situations and photographs. Memories seem to be commonly occurring with photographs because photographs are a sign or symbol of a past event.

Photographs remind us of our past birthdays, holidays and often take us down the memory lane. They also help us access deep locked memories which can never be relived but only be felt and approached in a later time.

As reported by the participant, *"Oh, ya, the football, the human relation thing. It kinda reminded me of when I was in my 11th and 12th, my college and my old friends. Cause now we don't like talk much. That was pretty much what held us together. Cause we would watch matches and most of my friends are footballers so, now we don't talk. Kinda reminds me of that".*

Another participant reported that *"That would be one of the college paths because it resembles like my UG college. So, there I had lots of fun, many friends same as here. Like here also I have so many friends so when I walk here, that memories come".*

Emotional attachment with photographs

Feelings and thought associated with clicking photographs: Most of the participants reported having certain feelings and thoughts. There are certain feelings and thoughts that are common across photographs which are feelings of guilt, loss and sadness and thoughts about what to click and when to click. Thoughts that are also usually common are their thoughts and ideas behind the photographs. The thought behind photographs are often complex and often consider different perspectives.

As reported by the participant, *"I think I'll be missing it a lot. I'm really happy that I have some good times here. And usually I do introspect like that only. You know. One year. I'm in second year now. So, one year has passed so fast and I'm already missing it. And each year, the burden is getting...increasing. So, you know the first year was just very good. So, I always wish...I even tell my friends also like you know the second year will also go so fast and the third year also...it goes so fast. And then you know, like it just gets over and them. Like.*

I'll be very sad about it and I often like; you know think about my school life, how it ended. My childhood. How it ended. How my teenage life ended. And now my college life also, you know. Yeah, masters will be there but masters are a different thing. Undergraduate is a different experience. So, it will be an emotional ending".

Another participant reported that, *"To be honest, it's like first I started, like, I was like. Pretty tensed. Like, what do you like click? And hesitation. Like, I was like I hope I don't do anything wrong. So, I just try my best to click. And in the end, like, few pictures turn out good actually like the tree and the hard work guy. The lighting spoiled the picture over there actually. And the friendship. All the relationship, I didn't get a good picture though. It could have been better actually".*

There are feelings of guilt, nausea and apprehension that are common across all participants. Participants also display feelings of happiness and elation when they are able to exactly capture what they were thinking. Feelings of nostalgia and sadness often accompany situations like a past break up or a group of friends who aren't friends anymore. Relationships have sour memories and often these pictures are which participants from the anxiety/ depression spectrum relate to.

Discussion and Interpretation

The aim of the present study is to identify the differences in perception among people suffering from these psychopathologies and those who are not affected by these pathologies. There have been studies that have been conducted to understand how people view the world around them. There have been a large of number of such studies done in the education sector but hardly any study has used photographs to understand mental health. Lehna and Tholcken requested participants to click images of specific aspects of their life, to demonstrate their penned work as student nurses with families [18].

The aim of the present study was to understand how people with and without anxiety/depression see the world. Perception of the world around us is complex and how people with certain pathologies interpret and understand the world around themselves has been a keen area of research for many professionals like psychologists, sociologists and other mental health professionals alike. In the present research both photographs and interviews were used to understand how people with and without these pathologies have interpreted the world. A qualitative and semi structured methodology was adopted based on the principles of thematic apperception test (TAT) and Rorschach Inkblot Test (RIBT) because it will be easy for the participants to project their true feeling in a semi structured interview and through the exercise of clicking photographs. Through this process of giving out themes and asking participants to choose themes and click photographs based on them would give an insight into their unconscious.

Photo elicitation can be used to discuss pictures selected by the researcher of discuss the pictures selected by the participants. Some aspects such as emotional breakdown, trauma, abuse or relation to past experience which makes the individual anxious can arise in the interview, when the participants click the images and share them in the interview which the researcher might not have considered [32].

The focus of the study was to understand differences in perception for which both verbal and visual methodologies were adopted. The purpose here was again to identify what works differently in case of perception with respect to individuals suffering from anxiety/ depression. There have been studies that have suggested that

individuals with depression use certain words more often than others. In a study it was found that when depressive participants were given an activity to talk about going to college. First person singular pronouns with negative affect were more common among participants who had a present depressive episode in comparison to a formerly diagnosed individual with depression [34]. Use of singular pronouns like I is associated with negative affect states. In another study it was found that use of "I" is more common among participants with high depression scores than those with lower depression scores. These differences were captured over several days of tape recording in natural speech.

There have been studies that have proved that using certain function words are more indicative of a pathological personality. Most pronouns indicate a focus on self-whereas when individuals use words like we and us it means they are thinking collectively and relationally. It means that the individual is concerned about the effects of his/her reactions on others. There was another study which was conducted to analyse the poetry written by suicidal versus non-suicidal poets, poets who ultimately committed suicide used more singular first-person pronouns in comparison to who did not [35].

There are certain memories and justifications that participants hold about certain events very tightly to themselves. They often distort and change the meaning these events have for them because it's much easier to have a false memory because the true memory is extremely disturbing. We often rationalise situations and people's reactions because that makes it easier for us to fit their reactions and conditions to our pre-existing notion of how things work. It's often easier to create a façade and block certain memories rather than facing them head on. In this study, we focused on (a) how psychiatric clients give meaning to their broken lives and suffering and (b) how facades play a role in their visual narratives. Much of the literature on suffering departs from the assumption that only a direct confrontation with and assimilation of the sources of suffering can help people to overcome or transcend their suffering. Our study found that persons suffering from severe mental illness can circumvent their suffering in representations of themselves that do not fit a linear development to more acceptance or assimilation of (suffering from) mental illness. Facades can fulfill useful, sometimes transitory, roles. They protect the storyteller from too direct a confrontation with their suffering. Facades are sometimes an intermediary step in a development in which one learns to face suffering more directly, but they can also offer an alternative to confrontation [36].

The semiotic examination was coordinated with a hermeneutic investigation. The hermeneutic investigation concentrated on the verbal story going with the photos. On this level, we broke down what the picture taker himself told about the photos and what importance was invested to the photographs inside the intersubjective setting of the photograph gathering.

Consolidating the verbal content with the pictures, we researched how members built their story as far as viewpoint, character and plot advancement, and the utilization of allegories. We broke down how this story identified with its unequivocal message as well as concealed capacities. To decide this relationship, we additionally relied upon setting data drawn from our perceptions of customers' execution in the photography gatherings and their remarks and reactions that were not coordinated in the story [37,38].

The purpose of using two methodologies one which is slightly quantitative and one purely qualitative was to tap some common features across the data. Qualitative methodology which was interviews helped us to tap into individual experiences and subjective realities. The goal was to eventually arrive at making photography therapeutic and generating therapeutic photography. It has been shown that photographs have a therapeutic element, and this can be used alongside other scientific and evidence-based therapies. Therapeutic nature of images is a method involving study of all aspects including taking photographs, viewing them, presenting and interpretation of the photographs. As a primary or secondary form of counselling [24]. The goal of this study to also find if there are certain photographs that participants click which can be therapeutic. The process of therapeutic photography was carried out with all the ten participants.

Photo-elicitation interview is unlike a traditional semi-structured interview and it includes components of a traditional interview but also incorporates images. These images along with traditional interview help clients to share their issue more freely, such flexibility is often missing in traditional semi-structured interviews [28,29]. The images used in photo-elicitation can either be selected on the basis of those that are clicked by the viewer and discussed with the researcher or that have no connection to the viewer [30]. In both cases, the purpose of the image is to begin a dialogue about the topic of interest or the area in which research is being conducted [28-30].

Burke states that photographs are, a reflection of the community in which they are produced rather than seeing them as a reproduction of that time and place. This idea arises from contextual placing of photographs. The same photograph can communicate different meanings if looked at in isolation by different individuals. It may also end up conveying a message the image never wished-for. Sometimes a series of photos provides more perspective in comparison to individual photos and often a series of photos are reliable [31-38].

Conclusion, Limitations and Future Implications

In the present study the sample is small, and it has to be expanded to generalise the results. In this study focus was only on two psychopathologies that is anxiety and depression. The focus can be expanded because perception may be also be different and distorted in case of OCD, DID and major psychotic disorders. Participants were university students who were screened for these pathologies, but the findings would be more reliable in case these were actual clinical patients. Another limitation of the study is that since the timeline was two years rigorous analysis could not be carried out. Proper training and expertise could have helped in much faster analysis and better interpretation.

The focus should be conducting such studies based on visual methodologies in clinical settings. The participants should be informed that this will provide an insight into their own perception. The information generated from these studies can be used to formulate an intervention which can be used alongside other well-established therapies. there are few studies that have used semiotic analysis and photographs to understand mental illness. There are few and apparently none from India. It is therefore essential that we use more visual tools specially photographs to uncover information that is usually absent in written word. Visual stimuli and unstructured stimuli help in communicating and displaying a lot of information that is not easily accessible and shared by participants. We need to conduct more researches like these to better understand mental health because a lot of it uncovered and unstructured.

Acknowledgment

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