



Research Article

Measuring art: Methodical development of a quantitative rating instrument measuring pictorial expression (RizbA)



Kerstin Schoch^{a,b,*}, Harald Gruber^c, Thomas Ostermann^b

^a Institute for Art Therapy and Research, University of Applied Sciences and Arts, Ottersberg, Germany

^b Department of Psychology and Psychotherapy, Faculty of Health, Witten/Herdecke University, Germany

^c Department of Art Therapy, Faculty Human Sciences and Social Sciences, Alanus University of Arts and Social Sciences, Germany

ARTICLE INFO

Article history:

Received 26 September 2016

Received in revised form 13 April 2017

Accepted 18 April 2017

Available online 13 May 2017

Keywords:

Pictorial expression

Art therapy

Differential psychology

Test construction

Quantitative methods

ABSTRACT

Art therapy theory assumes that art work is related to differential constructs of the artist. Empirically, this hypothesis has not been established because findings based on quantitative methods are rare. The Rating Instrument for two-dimensional Pictorial Work (RizbA) is designed to address this issue. The construct – *pictorial expression* – is theoretically defined by seven content areas: *representation, color, shape, space, motion, composition, expression*. In combination these create the overall test construct. The test development is based on art historical and art therapeutic theories, and the findings are supported empirically. Two online studies were conducted using a sample of nine pictures. These were rated by experts ($n_1 = 12$, $n_2 = 8$). In the first study, based on psychometric characteristics, an item pool of 113 items was examined and a preliminary test version developed. The second study examined quality criteria of the preliminary version. For both studies, factor analyses were computed.

The preliminary version includes 26 items. Its ability for differentiation between pictorial works ranges between .897 (T1) and .766 (T2), its inter-rater reliability between .525 (T1) and .917 (T2). Test-retest reliability is .919. PCA suggests a four-factors solution, which in large part is consistent across studies. As a reliable measurement RizbA opens new perspectives in fundamental art therapeutic and psychological research.

© 2017 Elsevier Ltd. All rights reserved.

Introduction

Although art therapy is a heterogeneous discipline, there is a fundamental assumption most experts share: that art work is related to the artist and his/her inner representations. From a differential psychological perspective, this relation can be applied to a multitude of constructs, such as needs, motives, coping mechanisms, sense of self, self-efficacy, as well as social and emotional skills. Studies indicate correlations between personality and preferences in art reception (Gridley, 2013), but few studies examine if there is also a correlation between personality and preferences in the way of creating art. In the therapeutic context art facilitates the representation of differential constructs that may be difficult for the client to express verbally and thereby provides another avenue of understanding. Further empirical evidence is required to provide support for these positions.

Previous research

The number of empirical studies about art therapy has increased over the years (Metzl, 2008) and indicates positive effects on specific variables such as mood valence (De Petrillo & Winner, 2005), mentalization (Franks & Whitaker, 2007), PTSD (Gantt & Tinnin, 2007), acute stress symptoms connected to PTSD (Chapman, Morabito, Ladakakos, Schreier, & Knudson, 2001), and depression (Gussak, 2006). However, heterogeneous samples, designs and measures complicate the comparison of results (Slayton et al., 2010). Studies often consist of qualitative data and single case analyses (Maujean et al., 2014; Slayton et al., 2010) and do not allow statistical conclusions. In terms of quantitative research, art therapy has some way to go before it can be agreed it has a mature evidence base (Eitel, Szkura, Pokorny, & von Wietersheim, 2008).

There have been different approaches such as regarding artistic and psychiatric aspects of pictures (e.g. Prinzhorn Collection, Cunningham Dax Collection; Koh, 2014) or considering aesthetics and cognitive schemata (Wagner, Menninghaus, Hanich, & Jacobsen, 2014). Still, standards of picture analysis hardly exist (Stuhler-Bauer & Elbing, 2003). Most tests are designed for clinical use, not

* Corresponding author at: Institute for Art Therapy and Research, University of Applied Sciences and Arts in Ottersberg, Am Wiestbruch 68, 28870 Ottersberg, Germany.

E-mail address: kerstin.schoch@hks-ottersberg.de (K. Schoch).

art in general. Only some describe the construct exhaustively and even fewer fulfill quantitative criteria.

One common method of systematizing artwork in this field is qualitative content analysis such as described by Thyme et al. (2013). *Diagnostic Assessment of Psychiatric Art* (Hacking, Foreman, & Belcher, 1996) fragments a picture into fields, measures aspects such as color and structure within these fields and results in mean scores. It does not include shape, space or composition. Application is defined clinically. *Nürtinger Rating Scale* (Eber, Müller, & Bader, 1998; Elbing & Hacking, 2001) is defined for therapeutic use, analyzes the picture in total and covers many aspects of classical picture analysis. It comes with a theory-based structure. Gruber, Frieling and Weis (2002) developed a *Systematic Picture Analysis* using discriminant analysis, which suggested differences between clients with different clinical diagnoses considering such as color effect or shape development (Petersen, Gruber, & Tüpker, 2011). *DokuPro* (Elbing & Hölzer, 2007; Elbing, Hölzer, Danner-Weinberger, & von Wietersheim, 2009; Elbing, Neuwirth, Knöbel, & Krilles-Mayr, 2010; Oster, Elbing, von Wietersheim, & Hölzer, 2010) is an empirically approved documentation of art therapeutic processes, of which one scale addresses art work itself. *Diagnostic Drawing Series* (Mills, 2003; Machiodi, 2012) asks the client to draw three pictures using pastels following different tasks, which then are analyzed by an art interview following a manual. *Formal Elements Art Therapy Scale* (Gantt & Anderson, 2009) refers to global variables in two-dimensional art. Coming from a clinical perspective, its 14 scales aim at structural elements based on the graphic equivalent of different mental states.

A very different approach to objectification of subjective ratings are approaches based on digital technology (Mattson, 2010). Mattson (2009, 2011) uses public domain image analysis software to rate items of the *Formal Elements Art Therapy Scale* (Gantt & Anderson, 2009). Considering color one of the most important factors of a drawing, Kim et al. (2007) use a computer-based system that automatically rates various basic color-related aspects.

Qualitatively, *Phenomenological picture analysis* (Stuhler-Bauer & Elbing, 2003) is used in art therapy and features an important theoretical position: the double function of the aesthetic state serves as a method of gaining cognition as well as a therapeutic agent. Thus, art is result but also impulse for new processes. The method is descriptive, critical and heuristic, pursuing the observer's impartiality. It leads back to phenomenology, examining the subject in an Aristotelian way, in which the whole is more than the sum.

Although several instruments of art therapeutic assessment exist, there is a severe lack of standardized, non-projective and sufficiently reliable measures that objectively describe *pictorial expression* based on quantitative methods. This is where *RizbA* contributes.

Theory

Construct definition is theory-based and focuses on *pictorial expression*, which is defined as artistic creation in the form of a picture. It involves several components that can be found in literature (e.g. Arnheim, 2000; Kandinsky, 1955; Meyer, 2011; Vollmar, 2008) and is reflected in an a priori designed meta structure of seven theoretical content areas (*representation, color, shape, space, motion, composition, expression*). Description is supposed to be exhaustive but non-redundant, objective, value-free and conducted in terms of a phenomenological analysis. It is neither evaluative nor interpretative and designed for rating two-dimensional manually created pictorial work (e.g. drawings, paintings). *RizbA* aims to be an instrument for experts. It can be used for investigating and measuring correlations of *pictorial expression* with many other constructs for which valid instruments exist, such as personality or clinical diag-

noses. As such it is a valuable method for future art therapeutic research.

Defining the nomological network, the test is unendorsed for machined (e.g. photography) or three-dimensional work (e.g. sculpture). It does not judge mastery nor is it projective like drawing tests (e.g. House-Tree-Person test; Buck & Warren, 1992). The subject is to be distinguished from experimental aesthetics, in which the perceiver becomes the subject. Theoretical background overlaps with art psychology but differs substantially because the processes of the artist's or observer's psyche are not relevant in the rating itself.

Materials and method

Test construction is led by theory and thus is empirically-based but non-empirical in a traditional sense. The underlying measurement model is similar to formative models. *Pictorial expression* is not a one-dimensional latent variable, but rather a profile of several characteristics, which sum up to the whole construct. Creating a construct map is hardly possible. To obtain an exhaustive description, the item pool is deductively developed based on theories of art historical and art therapeutic picture analysis and supplemented by aspects which proved relevant in practical artistic and art therapeutic work. The instruments mentioned above are examined for suitable items as well. Seven content areas as mentioned above are proposed. They are to exhaustively cover the whole scope of classical picture analysis. They are not to be seen as independent factors but rather as systemization with overlaps. Items sharing the same item stem are combined in question blocks. The questionnaire is in German and uses a bipolar six-point Likert-scale, which is discretely scaled and verbally anchored in shades of agreement.

Data was collected in two online studies using *SoSci Survey* (Leiner, 2014). Participants were instructed not to rate single details but the pre-dominant overall expression of pictures. Instructions indicated there is no right or wrong but personal valuation. Demographic variables were collected to confirm the participant's state of expertise (e.g. university degree, university and working experience as an art therapist).

Since art therapy usually focuses on art created without concern for one's professional artistic identity or the application of proficient techniques, stimulus material consisted of nine two-dimensional pictorial works of amateurs (2 male, 7 female), who were between 24 and 62 years old ($M = 35.4$, $SD = 12.73$) and differed in level of education and occupation. To generate a sample, participants were asked to create a picture. The pictures were selected in such a way as to be heterogeneous and representative of all types of genres (painting vs. drawing; representational vs. abstract). Pictures were photographed and used as digital images.

Analysis focuses on two units. Pictorial works serve as unit for item difficulty, capacity of differentiation, inter-item correlations, test-retest reliability and factor analysis. Raters serve as unit for inter-rater reliability. Since the data includes three levels (items, pictures, raters), for each analysis the relevant levels are chosen and the others are averaged.

Study 1

Sample and design

The first study is designed to examine items, exclude insufficient ones and create a preliminary test version. A total of 126 art therapists with graduate degrees at institutions certified by the *German professional association of art and gestalt therapy* (DFKGT) were contacted via email. Each of them received a personalized link to the online survey whereupon 23 participated. Ten of them completed

Download English Version:

<https://daneshyari.com/en/article/4935685>

Download Persian Version:

<https://daneshyari.com/article/4935685>

[Daneshyari.com](https://daneshyari.com)