



Research Article

**OBJECTIVE DATA AND OPERATIONALIZED PSYCHODYNAMIC DIAGNOSES WERE USED TO DETERMINE SELF-PERCEPTION IN MALE AND FEMALE ADOLESCENTS WITH OROFACIAL MALFORMATIONS**

Jochen Dinkel and Viktor Foltin

SEUC PhD Programme in Health Management and public Health Dentist, Mittelstraße 1B, 67240 Bobenheim-Roxheim

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ABSTRACT

Several research demonstrate that oral facial deformities have an impact on affected persons' and families' standard of living, socioeconomic and psychosocial well-being, long-term health, health-care utilization, and expenditures. The dependence on small and unrepresentative samples with inadequate measures on various crucial outcomes and confounding variables has been the fundamental constraint of most of these investigations. This is owing in part to the scarcity of large-scale datasets that provide detailed information on such topics, as well as the difficulty of access to them. As a result, there is a critical need to increase collaborations among craniofacial care providers, birth defect registries, and researchers in order to determine improve data collection systems, data needs, and form consortia that provide access and opportunities to further investigate the impact of oral system malformations on multiple outcomes across the lifespan.

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INTRODUCTION

"Self-concept" is a construct of the self-based thoughts on an individual, analyses, or perceives of oneself, as well as how others respond to the self. "The individual's opinion about herself or himself, encompassing the person's qualities and who and what the self is," according to Baumeister *et al.* is defined as self-perception (Baumeister *et al.*, 1996). Because of the well-documented link between body-image, self-concept, and appearance (Harter, 1999; Grogan, 2021), facial deformity can have serious psychosocial consequences.

Early in life, one's self-perception of oral health in terms of aesthetics is formed. Children's oral health self-perceptions, particularly involving physical appearance develops at the age of eight years (dos Santos, *et al.*, 2017). Children utilize criteria for self-perception of physical appearance that are comparable to those used by grown-ups (dos Santos, *et al.*, 2017). The sight of health instead of sickness, as well as cleanliness rather than bad hygiene, are all cues. Teeth, like jewellery and dress, provide nonverbal insights into a person's culture and convey nonverbal messages that influence how people view and interact with one another. However, the focus of this review study is on oral health self-perception. In Western cultures, adolescents with malformed, discolored teeth and malocclusion (badly aligned teeth) frequently report significant psychological and emotional problems linked to insecurity, ridicule, and negative feelings about appearance

(Molina-Frechero, *et al.*, 2017); whereas alluring people report of been assessed and regarded more positively (Van der Geld, *et al.*, 2007). The majority of folks are aware of the attractiveness of a smile. As a result of this better awareness of the beauty of a smile, the demand for and expansion of aesthetic dentistry in the United States has skyrocketed (Kokich, *et al.*, 1999).

Roles of the Face

The face's role in identity is just as crucial as its physiological functions. Because the face is the fundamental mechanism through which individuals recognize and engage with one another (Siemionow and Sonmez, 2008) and the major mode of self-expression, social interaction and emotional expression (Bailey and Edward, 1975) self-concept centers around it. The close link between self-concept and appearance has also been well documented (Harter, 1999; Grogan, 2021), and the face is an essential element of body image and self-worth (Allport, 1955). It influences how others view and judge you, influencing your impressions and conduct. Biases based in part on facial appearance influence crucial choices such as life partner and career selection (Zebrowitz, 1997), as well as criminal justice rulings (Zebrowitz and McDonald, 1991; Eberhardt *et al.*, 2006) and congressional elections (Todorov *et al.*, 2005). Physical attractiveness and mate selection are heavily influenced by facial features and skin quality (Siemionow and Sonmez, 2008; Jones and Kramer, 2015;

\*Corresponding author: Jochen Dinkel

SEUC PhD Programme in Health Management and public Health Dentist, Mittelstraße 1B, 67240 Bobenheim-Roxheim

Samson *et al.*, 2010). Unsurprisingly, beauty is the attribute that has gotten the most attention in research on face appearance (Zebrowitz and Montepare, 2008). People with appealing looks have been shown to have social advantages, such as being more popular, aggressive, and self-assured (Siemionow and Sonmez, 2008; Zebrowitz and Montepare, 2008; Langlois *et al.*, 2000; Bashour, 2006; Berscheid and Gangestad, 1982; Little *et al.*, 2011). These substantial social effects of facial attractiveness assist to illustrate why facial attractiveness is so crucial to one's self-perception.

### ***Self-Psychological Esteem's Importance: Gender Differences***

Positive self-esteem has long been considered a necessary component of mental wellness (Taylor and Brown, 1988). Empirical research backs up these beliefs by finding strong correlations between self-esteem and performance across a variety of psychological areas (Baumeister, 1998; Harter, 1998). Individuals' feelings, thoughts, and behaviors are all linked to their self-esteem. In various research, correlations among self-esteem and affect have been demonstrated. High self-esteem has been linked to higher levels of good impact and lesser levels of negative impact and depression on numerous occasions (Brown & Mankowski, 1993). Furthermore, self-esteem is linked to successful adjustment. Longitudinal studies have shown that self-esteem can operate as a preventive coping resource, whether directly or as a buffering factor, when analyzed beforehand to a variety of life problems ranging from everyday irritants to bereavement (Egan & Perry, 1998). Self-esteem is linked to both the content as well as structure of self-beliefs; it is linked to both (Campbell *et al.*, 1996).

Another possible explanation for gender disparities in self-esteem is the cultural emphasis on women's and girls' physical attractiveness. For both males and females, perceptions of one's personal attractiveness are linked to self-esteem, and women and girls typically express higher dissatisfaction with their looks and bodies than boys and men (Becker and Thompson, 1996). Despite efforts to democratize gender roles, cultural demands on girls' beauty have only grown stronger in recent decades. Furthermore, early adolescent girls choose an ideal body type that is slimmer than their own, while boys desire an ideal body type that is bigger than their own, according to study (Cohn *et al.*, 1987). As a result, puberty pushes girls away from their ideal body type whereas simultaneously bringing boys closer to it. Besides these physical variations, puberty also brings an awareness in self-consciousness (Harter, 1990), that may be especially harmful to girls due to the growing gap among their ideal and perceived body types.

### ***Self-Concept and Orofacial System Malformation***

People with facial deformities have a closer relationship with their appearance and self-concept than the general population (Kent and Thompson, 2014). Facial deformity, whether congenital or acquired, can have significant psychological consequences, including altered body image, diminished quality of life, and low self-esteem (Rumsey *et al.*, 2004, 2002; Rumsey *et al.*, 2003). Negative self-perception and poor social interaction are the most commonly cited difficulties (Crandall *et al.*, 2017). While there is not any universal

agreement, most studies suggest that facial disfigurement causes low self-esteem and a negative self-image that can last a lifetime. In those with facial deformities, fear of poor social evaluation, social anxiety, and social avoidance are widespread (Rumsey and Harcourt, 2004). According to cleft lip research, afflicted children are more likely to experience overall sadness, anxiety, and self-doubt in interpersonal connections (Millard and Richman, 2001), and many affected teens believe their self-confidence is still harmed by their disfigurement (Turner *et al.*, 1997). One study found that the suicide risk among Danish individuals with cleft palates was twice that of the unaffected group (Herskind *et al.*, 1993). Facial impairment can obstruct social engagement in a variety of ways; those who are affected report problems meeting new people and finding new acquaintances, as well as difficulties forming long-term relationships (Robinson, 1997). Teasing, remarking, asking unsolicited inquiries about the disfigurement, and demonstrating avoidant or unpleasant conduct are common responses between family members and peers toward people with disfigurement (Rumsey, 2002a, 2002b). These unfavorable interactions, therefore, might cause impacted people to become preoccupied with their appearance in expectation of future similar situations. This obsession with beauty can lead to self-isolating behaviors, which can exacerbate the psychosocial issues of deformity by reducing the social support network available to afflicted people. Substance misuse, changes in economic or employment status, and relationship issues are all possible outcomes of facial deformity (Rozen *et al.*, 1972).

Healthy peer relationships, and social acceptance have all been linked to a child's or adolescent's facial attractiveness as perceived by peers or teachers (Perkins and Lerner, 1995; Serketich and Duman, 1997; Jackson *et al.*, 1995; Shaw *et al.*, 1985; Kerosuo *et al.*, 1995). Rivera *et al.*, on the other hand, found that adolescents and children with malocclusion have a good self-concept and self-esteem, and that their body image is comparable to that of the general population. It revealed that the child's own impression of the severity of his or her malocclusion, rather than the clinical examination, was the more essential contributing element to self-concept and self-esteem in those patients with low self-concept or self-esteem (Rivera *et al.*, 2000). In preadolescents and teenagers, several investigations have confirmed that the clinical amount of the malocclusion does not seem to be connected to self-concept (Tung and Kiyank, 1998; Klima *et al.*, 1979; Dan *et al.*, 1995) or self-esteem (Albino *et al.*, 1994).

### ***Self-Report Instruments***

There are various instruments that can be used to assess the self-perception.

The Multidimensional Self-Concept Scale (MSCS) assesses overall self-esteem as well as six distinct self-concept domains: social, affect, competence, academic, physical and family. There are 25 things in each domain. Each item is given a value ranging from 1 (agree strongly) to 4 (strongly disagree). Negatively phrased items are graded in the opposite direction. The total of all items or domain-specific items is used to obtain the raw global and domain scores. The worldwide and domain scores then are standardized (IQ metric) using the user manual's standard score conversions. A

higher score suggests that you have a more positive self-image.

The Facial Image Scale (FI)1 assesses a person's feelings regarding specific facial characteristics or locations. On a five-point scale, subjects score 13 items ranging from intense negative sentiments (Baumeister *et al.*, 1996) to strong positive ones (Lazaridou *et al.*, 2003). The Dentofacial subscale score is based on the average of six feature scores (mouth, chin, teeth, profile, smile, and lips). The better the dentofacial image, the higher the score.

The IOTN-AC16 (Index of Orthodontic Treatment Need–Aesthetic Component) is created to provide a valid technique of ranking malocclusions based on occlusal features.

### **Long-Term Health Effects of Orofacial System Malformations**

A person's oral appearance might be affected by anterior incisor anomalies. The attractiveness of one's face and teeth are a significant factor in one's overall quality of life (Marques *et al.*, 2009; De paula *et al.*, 2009; Kiyak *et al.*, 2008). Negative aesthetic changes in anterior teeth are easily seen in compared to back teeth, resulting in oral aesthetic dissatisfaction. Aesthetic changes in incisor location are closely linked to the urge for undergoing orthodontic treatment in adults (Maltagliati and Montes, 2007) in order to improve oral aesthetics. Zhang and McGrath found from a study of the literature that malocclusion and its treatment could have an impact on psychological health and self-concept. Patients seek orthodontic treatment for a variety of reasons (Kiyak *et al.*, 2008), including aesthetics and social elements of oral health-related quality of life. Orthodontic treatment, on the other hand, has been shown to improve several areas of life quality, most notably esthetics, but not definitely social acceptance. Furthermore, self-esteem does not seem to be harmed in the long run.

Understanding the long-term health implications of OFC and other craniofacial abnormalities is critical for quantifying the health burden and enhancing service delivery and health-care policies for impacted communities. Moreover, limited knowledge is available about the long-term effects of OFC and healthcare demands in individuals and families. OFC's long-term health outcomes have been studied in several research using the Danish health registry system. OFC was linked to an increased risk of mortality in both males and females, according to Christensen *et al.* (2004). When compared to unaffected individuals, Bille *et al.* (2005) discovered elevated chances of breast and brain cancer in females with OFC and CP, respectively, and potential complications of lung cancer in males with CLP. Furthermore, Christensen and Mortensen (2002) discovered that persons with CP and CLP have much higher rates of hospitalization owing to mental health issues than unaffected adults. These findings strongly demonstrate that OFC has a significant impact on the health of those who are impacted throughout their lives.

Social inhibition is common in adolescents with orofacial clefts (Kapp-Simon and McGuire, 1997). Teens with cleft palates may experience feelings of isolation and social anxiety as a result of their low social competency (Pope and Ward, 1997). Males with cleft lip and palate are more prone than those without clefts to have a midline brain abnormality and a lower IQ (Nopoulos *et al.*, 2001). Orofacial cleft males are

more likely to have a reduced orbitofrontal brain, which is linked to lower social functioning (Nopoulos *et al.*, 2005).

Another study (Warschusky *et al.*, 2002) used the Child Health Questionnaire version PF28 to look at parents' opinions of HRQoL in children with cleft and other craniofacial deformities aged 5 to 18. Parents indicated that their children with cleft lip and/or palate had normal physical and psychological scale scores in this study. The parents of children who have a cleft lip and/or palate are less concerned about their children's overall health than parents of children with other craniofacial defects. There were no significant links between physical or mental health and age or sex. Their findings imply that in children with craniofacial deformities, there is a link between parental perceptions of physical health and psychological adjustment.

### **Management Approach**

Physical beauty is a significant component in influencing young people's social connections (Traebert and Peres, 2007). As a result, aesthetic changes in the face might be self-perceived and have an impact on one's quality of life (Marques *et al.*, 2009; De paula *et al.*, 2009; Kiyak *et al.*, 2008). The top motivations for orthodontic treatment among young adults in Finland, for example, were to enhance dental appearance and attitudes toward malocclusion (Tuominen, 1994). Adolescents who had finished orthodontic treatment reported less oral health effects linked to smiling, laughing, and exhibiting teeth without embarrassment in a Brazilian study (De Oliveira and Sheiham, 2004). Reduced susceptibility to tooth cavities and trauma, periodontal disease, and temporomandibular disorders have all been proposed as potential orthodontic treatment benefits, but research has continually failed to produce sufficient evidence of social or psychological benefits (Shaw, 2012).

The impact of corrective face surgery on self-concept has been studied extensively. Patients seeking orthognathic surgery, which involves manipulating the face skeleton to re-establish functional and anatomical relationships in patients with dentofacial anomalies, have expressed a strong desire for enhanced appearance in studies measuring psychological effects (Cadogan and Bennun, 2011). Patients who receive corrective face surgery led to improved measures of personality adjustment, such as psychosis or neurosis, as well as self-concept, self-identity, self-esteem, and self-conflict, according to several studies (Cadogan and Bennun, 2011; Lazaridou *et al.*, 2003; Flanary *et al.*, 1990; Yin *et al.*, 2016; von *et al.*, 2011; Imadojemu *et al.*, 2013; Reilly *et al.*, 2015). The face plays a major part in an individual's self-esteem and impacts the road to psychological rehabilitation in facial deformities caused by head or neck malignancies or associated procedures (Costa *et al.*, 2014). Costa *et al.* demonstrated how postsurgical facial deformity leads to a damaged self-concept and how self-concept healing is a long and slow process. Patients with head or neck cancer must go through a body image reintegration process (Dropkin, 1999), which involves "reorganizing perception of self into a once again acceptable unity" (Callahan, 2005). Multiple groups (Roing *et al.*, 2009; O'Brien *et al.*, 2012) have confirmed these findings, which apply to different types of corrective cosmetic surgery.

There is a requirement to evaluate the impact of OFC on HRQL in impacted individuals and families over the course of their lives, using huge population-based samples, reliable

HRQL measures, and diverse viewpoints, including societal perspectives. For cost-effectiveness assessments of healthcare interventions for OFC, a societal viewpoint is required (Gold, 1996). In addition, it is critical to use both multi-domain HRQL survey instruments and methods for obtaining HRQL values and utility scores, which are required for cost-effectiveness analysis (Wehby *et al.*, 2006).

## CONCLUSION

Several research demonstrate that oral facial deformities have an impact on affected persons' and families' standard of living, socioeconomic and psychosocial well-being, long-term health, health-care utilization, and expenditures. The dependence on small and unrepresentative samples with inadequate measures on various crucial outcomes and confounding variables has been the fundamental constraint of most of these investigations. This is owing in part to the scarcity of large-scale datasets that provide detailed information on such topics, as well as the difficulty of access to them. As a result, there is a critical need to increase collaborations among craniofacial care providers, birth defect registries, and researchers in order to determine improve data collection systems, data needs, and form consortia that provide access and opportunities to further investigate the impact of oral system malformations on multiple outcomes across the lifespan.

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