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The Effects of Cystic Fibrosis on the Self-Concept of Adolescents

Virginia Meissner
Carroll College, vmeissner@carroll.edu

Kate Ferenz
Carroll College, kferenz@carroll.edu

Melanie Tellinghusen
Carroll College, mtellinghusen@carroll.edu

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The Effects of Cystic Fibrosis on the Self-Concept of Adolescents
By: Melanie Tellinghusen, Ginny Meissner, and Kate Ferenz
Carroll College Nursing Department

<table>
<thead>
<tr>
<th>Question:</th>
<th>Are adolescents who have cystic fibrosis (CF) compared to those without at a higher risk for disturbed self-concept?</th>
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</table>

**Background:**
- More than 70,000 people worldwide are affected by this autosomal recessive genetic disorder (Clifton and Sullivan, 2017).
- More than 10 million Americans are carriers of the CF gene (Clifton and Sullivan, 2017).
- The average person diagnosed with CF will live into their mid-thirties (Clifton and Sullivan, 2017).
- CF is a multi-system disease that affects the mucus production in the lungs and digestive system.
- Signs a symptoms of CF include salty-tasting skin, persistent coughing with phlegm, frequent lung infections, wheezing, dyspnea, malnutrition, and bowel dysfunction (Cystic fibrosis foundation, n.d.).
- Treatment includes a strict medication regimen, chest physiotherapy, nutrition education, and infection prevention (Cystic fibrosis, 2016).
- Adolescence is defined as ages ten to nineteen (WHO, 2019).
- Self-concept is defined as the mental image or picture of self and includes body image and self-esteem (Taylor, Lillis, and Lynn, 2015).
- Self-esteem is the way an individual views their own abilities (Coopersmith, 1967).
- Body image is the way an individual views their own physical body and appearance (Coopersmith, 1967).
- This is significant because the information will provide nurses, caregivers, patients, and providers with a further understanding of the impact this disease has on self-concept and mental health.

<table>
<thead>
<tr>
<th>Study</th>
<th>Description</th>
<th>Results</th>
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<tr>
<td>Perceived Body Image and Eating Behavior in Young Adults with Cystic Fibrosis and Their Healthy Peers (Abbott, et. al., 2000)</td>
<td>Level II study involving 221 young adults with CF and 148 healthy young adults. Examined body image and eating behaviors in CF young adults compared to their healthy peers. Series of questionnaires</td>
<td>Those with CF appear to have healthy eating behavior and body image perceptions that parallel to or exceed their healthy peers.</td>
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<td>Body image and dieting behavior in cystic fibrosis (Truby and Paxton, 2001)</td>
<td>Level I study in Victoria, Australia involving 102 CF and 153 healthy adolescents compared the pulmonary function, nutritional status, body image, and eating attitudes. One-on-one interviews</td>
<td>This study found that there is no particular correlation between having a negative self-esteem, body image, or dieting behavior and children with CF.</td>
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<td>The self image of adolescents with cystic fibrosis (Sawyer, et. al., 1995)</td>
<td>Level IV study involving 49 CF adolescents between the age of 14-18 compared to published normative data about healthy adolescents. Used “Offer Self-Image” questionnaire. Measured body and self-image.</td>
<td>Females with CF were significantly less adjusted than the healthy group, with the greatest difference in their body and self-image. No difference between CF and healthy adolescents.</td>
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<tr>
<td>Psychosocial distress and functioning of Greek youth with cystic fibrosis: a cross sectional study (Kostakou et. al., 2014)</td>
<td>Level IV study involving 30 adolescents with CF age 8-18 compared to a control group of healthy adolescents. “Culture-free self-esteem inventory” used to measure self-esteem.</td>
<td>No significant difference between the CF adolescents and the healthy control group.</td>
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<td>What characterizes early adolescents with positive body image? A qualitative investigation of Swedish boys and girls (Frissen and Hornqvist, 2010)</td>
<td>Level VI qualitative study involving 30 healthy adolescents, 15 boys and 15 girls. One-on-one interviews in four different sessions. Trends in adolescents with continuous positive body image.</td>
<td>The participants maintained a positive body image throughout the study. Eight trends indicating positive body image qualities were discovered among these participants.</td>
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<tr>
<td>Body image among girls and boys: a longitudinal study (Carlson-Jones, 2004)</td>
<td>Level IV quantitative cohort study involving 158 middle schoolers and 146 high schoolers. Used surveys. Contributions to body image dissatisfaction and changes in body image satisfaction.</td>
<td>Trends in both male and female body image dissatisfaction showed many fluctuations between the ages.</td>
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**Results:**
- The evidence reveals that at this time there are no significant differences in self-concept in adolescents with CF compared to healthy adolescents.
- Data does suggest, however, that female adolescents are more susceptible to body image dissatisfaction.
- Furthermore, there were minimal studies that were big enough or recent enough to develop a definitive solution and apply it to the general population. Based on these hindrances, further research is necessary in this area.

**Application to Nursing:**
- Implement a screening tool, such as a questionnaire, to evaluate how adolescents feel about their body image and self-esteem to be given at annual wellness check-ups.
- Implement better education programs in relation to puberty and body image as studies show that as adolescents go through puberty, their self-esteem decreases, especially in females.
- Create a qualitative study with both healthy adolescents and those with CF to obtain a better understanding of how self-concept will change with CF. From this we can form a quantitative study in order to apply it to a larger demographic.