

MAŁGORZATA OBARA-GOŁĘBIEWSKA

University of Warmia and Mazury

<https://orcid.org/0000-0003-0057-4365>

## ASSESSMENT OF THE INTERDEPENDENCE OF EARLY MALADAPTIVE SCHEMAS WITH INCORRECT EATING BEHAVIOURS IN GROUP OF WOMEN IN THEIR EARLY ADULTHOOD\*

**Introduction:** Young's (2003) concept assumes that early maladaptive schema is a broad, dominant motive or pattern composed of memories, emotions, physiological responses, and beliefs about oneself, other people, and the world. In recent years, there has been a growing focus on early maladaptive schemas as a core feature associated with eating psychopathology leading to overweight, obesity, and eating disorders.

**Research Aim:** The aim of the study is to assess the interdependence of early maladaptive schemas with incorrect eating behaviours (habitual overeating, emotional overeating, diet restrictions). The research also aims to identify predictors of incorrect eating behaviours.

**Method:** The study included 560 females between the ages of 19 and 25. The study measured severity of abnormal eating behaviour and Early Maladaptive Schemas by Young. The Polish adaptation of Young Schema Questionnaire (YSQ) and The Questionnaire of Eating Behaviour (QEB) were used in the study.

**Results:** In relation to the overall Eating Behaviour Questionnaire and its subscales – emotional overeating, habitual overeating, and dietary restrictions – most schemas showed statistically significant associations and served as significant predictors in regression models.

**Conclusions:** The result obtained shows important research tendencies and may indicate the direction of further scientific research linking Young's schema theory to abnormal eating u.

**Keywords:** overweight, eating behaviours, early maladaptive schemas, women in their early adulthood

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## INTRODUCTION

Insight into the factors influencing human behaviour leading to overweight and obesity as well as eating disorders is becoming a subject of interest of health psychology as well as other fields of science (Clark et al., 2023; Dai et al., 2020). Overeating might be one of the strategies of emotion regulation that leads to increased weight or eating disorders (House et al., 2022; Kerin et al., 2018, Webb & Zimmer-Gembeck, 2018). Therefore, the use of evidence-based methods of eating control therapy effectively supports the process of treating overweight, obesity, or eating disorders. One of such methods is cognitive-behavioural psychotherapy [CBT] (Gade et al., 2014; Moraes et al., 2020; Spoer & Fullilove, 2015). CBT has been recognized as one of the most effective psychotherapeutic approaches for treating eating disorders and obesity (Comsa et al., 2020; Dalle et al., 2020). In recent years, however, increasing attention has been given to early maladaptive schemas as a key factor linked to eating psychopathology and overweight (Gerges et al., 2022; Wadden et al., 2005). It is estimated that one of the most effective therapeutic approaches, especially as regards durability of therapeutic effects and prevention of recurrence of disease symptoms, is Young's schema therapy (Videller et al., 2018). Schema therapy is included in the so-called third wave of cognitive-behavioural psychotherapy (Bach et al., 2018). Young's concept assumes that early maladaptive schema [EMS] is a broad, dominant motive or pattern, composed of memories, emotions, physiological responses, and beliefs about oneself, other people, and the world. Early maladaptive schemas identified by Young et al. (2013) are grouped into five broad schema domain categories of unmet needs. Those five schema domains are as follows: disconnection/rejection; impaired autonomy and/or performance; impaired limits; other-directedness; over-vigilance/inhibition. Eighteen early maladaptive schemas were distinguished, such as: Emotional deprivation; Abandonment/bond instability; Distrust/hurt; Social isolation; Defectiveness/shame; Failure; Dependence/incompetence; Sense of insecurity; Emotional entanglement/lack of self-identity; Subjugation; Self-sacrifice; Emotional inhibition; Unrelenting standards/excessive criticism; Privilege/sense of superiority; Insufficient self-control; Seeking approval and recognition; Pessimism; Propensity to punish. Schemas are formed in childhood because of the interaction of factors associated with unmet primary needs, environment, and temperament. They are often adaptive in childhood, they allow survival in difficult conditions, but in adulthood they become inaccurate, dysfunctional representations of the world. They affect the psychophysical functioning of a human being. They often trigger emotional reactions that are disproportionate to the actual situation (Young et al., 2013).

Research shows that early maladaptive schemas may play an important role in terms of obesity, eating disorders, or health-related quality of life (Legenbauer et al., 2018; Meneguzzo et al., 2021). For instance, Anderson et al. (2006) discovered

that treatment-seeking obese adults exhibited a higher overall severity of dysfunctional schemas compared to normal-weight controls. This research (Anderson et al., 2006) highlighted significant differences between the groups, particularly in the schemas of Social Isolation, Defectiveness/Shame, and Failure. In Turner et al.'s (2005) study, overweight individuals scored significantly higher on Young's schemas of Emotional Deprivation, Abandonment/Bond Instability, Subjugation, and Insufficient Self-Control/Self-Discipline. According to various studies, early maladaptive schemas also impact disordered eating attitudes. Binge eating has been positively associated with various maladaptive schemas, such as abandonment, vulnerability to harm (Jones et al., 2005), dependence/incompetence, emotional inhibition (Waller, 2003), emotional deprivation (Hughes et al., 2006), defectiveness/shame, failure, insufficient self-control, distrust, and social isolation (Waller et al., 2001a; 2001b). Purging behaviours have shown positive correlations with defectiveness/shame, social isolation, and perceived social undesirability (Leung et al., 2000). Additionally, other studies have linked vomiting frequency to failure during early maladaptive schema (Leung et al., 1999). Next, restrictive behaviours have been correlated with greater dependence/incompetence and emotional inhibition EMS (Waller et al., 2002; Waller et al., 2007).

## RESEARCH PROBLEM AND AIM

Schema therapy is one of the most effective therapeutic approaches (Koruk & Ozabaci, 2018; Linardon et al., 2017; Videler et al., 2018). Unfortunately, there is a lack of research on the interrelations of early maladaptive schemas and abnormal eating behaviours. Therefore, the aim of the study is to assess interdependence between early maladaptive schemas and incorrect eating behaviours (eating habits, emotional eating, restrictions). The research also aims to identify psychological predictors of incorrect eating behaviours, focusing particularly on the role of individual early maladaptive schemas. The study set out to answer the following research questions: How do specific schemas influence eating behaviours, including habitual overeating, emotional overeating, and dietary restriction among individuals with varying body weight? Maladaptive eating behaviours can occur independently of weight status and are not limited to individuals with overweight or obesity. Research has shown that emotional overeating, restrictive dieting, and habitual overeating may also be observed in individuals with normal BMI and are often associated with psychological distress, impaired self-regulation, or early cognitive-emotional vulnerabilities (House et al., 2022; Kerin et al., 2018, Webb & Zimmer-Gembeck, 2018). Including participants across a wide BMI spectrum allows for a better understanding of the underlying psychological mechanisms contributing to disordered eating tendencies.

The results will allow for preliminary determination of the interdependence of the examined factors and their statistical associations with food control difficulties. No causal conclusions can be drawn here, due to the cross-sectional design. However, the findings may inform future research on the psychological mechanisms underlying disordered eating and guide interventions based on cognitive-behavioural approaches.

## MATERIALS AND METHODS

The study included 560 females between the ages of 19 and 25 ( $M = 21.7$ ;  $SD = 12.2$ ), patients of basic health care in selected primary health care centres in the Warmian-Masurian Voivodeship. Participants were eligible to take part in the study if they met the following criteria: age between 18 and 25 years, ability to understand study procedures and provide informed consent, and no current psychiatric treatment or serious mental illness based on self-reported medical history. Exclusion criteria included pregnancy, substance dependence, intellectual disabilities interfering with questionnaire completion, or chronic medical conditions significantly affecting body weight (e.g., type 1 diabetes, thyroid disorders).

Participants were not selected based on the category of BMI, and the sample included individuals with varying body weight – from underweight to obesity. Self-reported weight and height were collected to calculate BMI for descriptive and analytical purposes. Inclusion of a diverse sample with respect to body weight was intentional, as the aim was to examine maladaptive eating behaviours and early maladaptive schemas across the weight spectrum.

The study was conducted between January 2021 and May 2024. Participants were recruited through direct contact with general practitioners and via informational posters displayed in clinics. The study was carried out with the support of medical staff working in the clinics, who assisted in distributing and collecting the survey materials.

Participants completed printed questionnaires individually in a quiet room provided by the health centre or at home. Completed forms were returned in sealed envelopes within one week. The procedure was approved by the Research Ethics Committee of the Social Science Faculty at the University of Warmia and Mazury in Olsztyn (Decision No. 3/2019).

*The Polish adaptation of Young Schema Questionnaire (Short Version) YSQ-ES-PL* by Staniaszek and Popiel (2017) was used. Young Schema Questionnaire – YSQ was originally designed by Young, Klosko and Weishaar (2013). YSQ is a tool designed to measure severity of early maladaptive patterns. The tool assesses intensity of each of the 18 schemas based on the respondent's self-report, requiring them to respond to highlighted statements. This enables identification of an

individual's specific schema pattern. The questionnaire comprises 90 items, with five questions per schema. Answers are given on the six-point Likert scale from 1 – “completely untrue about me” to 6 – “perfectly describes me.” The results obtained for each scheme are in the range of 5-30. The arithmetic mean for each scheme is also calculated and the total score for all. The Cronbach's alpha coefficient for 18 schemes ranged from .71 to .93.

*The Questionnaire of Eating Behaviour (QEB).* The questionnaire is a tool based on self-descriptions of eating behaviours by Ogińska-Bulik and Putyńska (Ogińska-Bulik, 2006). The tool enables assessment of eating-related behaviours, including diagnosis of eating disorders, prediction of weight gain tendencies, and identification of factors contributing to excessive eating leading to overweight or obesity. It comprises three subscales and helps determine whether loss of control over eating – such as overeating – is habitual, emotionally driven, or a result of excessive and improper dietary restrictions. It is composed of 30 statements with either yes or no answers. The higher the number of points scored, the greater the eating behaviour abnormality is.

## DATA ANALYSIS

To address the research questions and test the hypotheses, statistical analyses were conducted using IBM SPSS Statistics version 25. Using the program, a series of linear regression analyses were conducted. Their goal was to identify directional relationships between YSQ schemas and the eating behaviours.

## RESULTS

### Descriptive statistics

The body mass index (BMI) of participants ranged from 17.2 to 39.8, with a mean value of  $M = 23.9$  ( $SD = 4.3$ ), indicating inclusion of individuals with underweight, normal weight, overweight, and obesity. The total score on the Questionnaire of Eating Behaviour (QEB) ranged from 3 to 25, with a mean of  $M = 11.6$  ( $SD = 5.2$ ), suggesting a varied presence of maladaptive eating behaviours in the sample. The mean score for habitual overeating was  $M = 3.8$  ( $SD = 1.9$ ), for emotional overeating  $M = 4.2$  ( $SD = 2.1$ ), and for dietary restrictions  $M = 3.6$  ( $SD = 2.0$ ). These values indicate that even among participants with normal BMI, maladaptive eating patterns such as emotional eating and restrictive dieting were present to a moderate degree. These descriptive data indicate that maladaptive eating behaviours – particularly emotional overeating and dietary restriction – were present to a moderate extent even among participants with normal BMI.

This supports the study's rationale for analysing maladaptive eating patterns independently of weight status.

### Associations between Young's schemas and overall eating behaviour score (QEB)

In the subsequent models, schemas served as explanatory (independent) variables, while the overall eating behaviour score was the dependent variable.

Table 1.  
*Regression analysis for schemas and their effect on overall eating behaviour score*

Predictor	B	SE	$\beta$	<i>t</i>	<i>F</i>	<i>p</i>	<i>R</i> <sup>2</sup>	Sk. <i>R</i> <sup>2</sup>
Emotional deprivation	0.129	0.038	0.117	3.364	11.317	0.001	0.014	0.013
Abandonment/bond instability	0.120	0.032	0.133	3.814	14.550	<0.001	0.018	0.016
Distrust/hurt	0.155	0.039	0.140	4.016	16.132	<0.001	0.020	0.018
Social isolation	0.166	0.038	0.152	4.365	19.054	<0.001	0.023	0.022
Defection/shame	0.102	0.045	0.079	2.257	5.095	0.024	0.006	0.005
Failure	0.166	0.041	0.141	4.063	16.505	<0.001	0.020	0.019
Dependence/incompetence	0.115	0.044	0.091	2.607	6.794	0.009	0.008	0.007
Sense of insecurity	0.175	0.041	0.150	4.304	18.521	<0.001	0.022	0.021
Emotional entanglement/lack of self-identity	0.096	0.042	0.079	2.260	5.109	0.024	0.006	0.005
Subjugation	0.175	0.042	0.144	4.145	17.178	<0.001	0.021	0.020
Self-sacrifice	0.062	0.038	0.057	1.613	2.601	0.107	0.003	0.002
Emotional inhibition	0.127	0.038	0.116	3.312	10.969	0.001	0.013	0.012
Unrelenting standards/ excessive criticism	0.123	0.036	0.119	3.420	11.698	0.001	0.014	0.013
Privilege/ sense of superiority	0.094	0.042	0.078	2.238	5.010	0.025	0.006	0.005
Insufficient self-control	0.105	0.035	0.105	3.015	9.089	0.003	0.011	0.010
Seeking approval and recognition	0.137	0.038	0.126	3.606	13.006	<0.001	0.016	0.005
Pessimism	0.098	0.033	0.104	2.984	8.901	0.003	0.011	0.010
Propensity to punish	0.070	0.038	0.065	1.853	3.435	0.064	0.004	0.003

*B* – unstandardized regression coefficient; *SE* – standard error;  $\beta$  – standardized regression coefficient; *t* – *t*-test value; *F* – *F*-test value; *p* – significance; *R*<sup>2</sup> – coefficient of determination; *sk. R*<sup>2</sup> – adjusted coefficient of determination, source: own study.

Eating behaviour, self-sacrifice, and propensity to punish proved to be non-significant predictors (significance at the level of statistical trend). The remaining schemas significantly, though weakly (the percentage of explained variance does

not exceed 3%) predict variation in the overall score. The higher the scores for each schema, the more dysfunctional the eating behaviour.

### Associations between Young's schemas and habitual overeating

In the subsequent models, schemas served as explanatory (independent) variables, while habitual overeating was the dependent variable. The pooled results of the regression analyses are summarized in Table 2.

Table 2.

*Regression analysis for Young's schemas and their impact on habitual overeating*

Predictor	B	SE	$\beta$	<i>t</i>	<i>F</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>sk. R</i> <sup>2</sup>
Emotional deprivation	0.045	0.019	0.085	2.426	5.884	0.015	0.007	0.006
Abandonment/bond instability	0.056	0.015	0.127	3.640	13.250	<0.001	0.016	0.015
Distrust/hurt	0.063	0.019	0.116	3.336	11.128	0.001	0.014	0.012
Social isolation	0.070	0.019	0.131	3.763	3.763	<0.001	0.017	0.016
Defection/shame	0.017	0.022	0.027	0.756	0.572	0.450	0.001	-0.001
Failure	0.040	0.020	0.070	1.993	3.971	0.047	0.005	0.004
Dependence/incompetence	0.048	0.021	0.079	2.249	5.058	0.025	0.006	0.005
Sense of insecurity	0.081	0.020	0.142	4.091	16.735	<0.001	0.020	0.019
Emotional entanglement/lack of self-identity	0.038	0.021	0.065	1.854	3.436	0.064	0.004	0.003
Subjugation	0.038	0.021	0.064	1.821	3.315	0.069	0.004	0.003
Self-sacrifice	0.04	0.019	0.045	1.286	1.654	0.199	0.002	0.001
Emotional inhibition	0.028	0.019	0.053	1.516	2.30	0.130	0.003	0.002
Unrelenting standards/ excessive criticism	0.034	0.018	0.068	1.935	3.743	0.053	0.005	0.003
Privilege/ sense of superiority	0.039	0.020	0.067	1.918	3.679	0.055	0.005	0.003
Insufficient self-control	0.039	0.017	0.081	2.314	5.356	0.021	0.007	0.005
Seeking approval and recognition	0.052	0.019	0.099	2.831	8.017	0.005	0.010	0.009
Pessimism	0.028	0.016	0.061	1.744	3.043	0.081	0.004	0.003
Propensity to punish	0.028	0.018	0.053	1.519	2.300	0.129	0.003	0.002

*B* – unstandardized regression coefficient; *SE* – standard error;  $\beta$  – standardized regression coefficient; *t* – *t*-test value; *F* – *F*-test value; *p* – significance; *R*<sup>2</sup> – coefficient of determination; *sk. R*<sup>2</sup> – adjusted coefficient of determination. Source: own study.

Among the schemas, emotional deprivation, abandonment/bond instability, distrust/hurt, social isolation, failure, dependence/incompetence, feeling threatened, insufficient self-control, seeking approval and recognition were found to be

significant predictors of habitual overeating. Values of standardized regression coefficients for schemas are positive, meaning that as the values of schemas increase, habitual overeating increases. However, each predictor predicts variability of habitual overeating at no more than 1-2%, which is practically very little.

### Associations between Young's schemas and emotional overeating

In subsequent models, schemas were the explanatory variables, while emotional overeating was the explained variable. Pooled results of regression analyses are presented in Table 3.

Table 3.

*Regression analysis for Young's schemas and their impact on emotional overeating*

Predictor	B	SE	$\beta$	<i>t</i>	<i>F</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>Sk. R</i> <sup>2</sup>
Emotional deprivation	0.037	0.015	0.084	2.401	5.767	0.017	0.007	0.006
Abandonment/bond instability	0.040	0.013	0.110	3.142	9.874	0.002	0.012	0.011
Distrust/hurt	0.054	0.015	0.122	3.493	12.202	0.001	0.015	0.014
Social isolation	0.036	0.015	0.084	2.385	5.690	0.017	0.007	0.006
Defection/shame	0.029	0.018	0.055	1.577	2.487	0.115	0.003	0.001
Failure	0.054	0.016	0.115	3.302	10.902	0.001	0.013	0.012
Dependence/incompetence	0.033	0.018	0.067	1.898	3.603	0.058	0.004	0.003
Sense of insecurity	0.046	0.016	0.099	2.839	8.062	0.005	0.010	0.009
Emotional entanglement/lack of self-identity	0.045	0.017	0.093	2.654	7.042	0.008	0.009	0.007
Subjugation	0.052	0.017	0.108	3.079	9.481	0.002	0.012	0.010
Self-sacrifice	0.013	0.015	0.029	0.817	0.667	0.414	0.001	<0.001
Emotional inhibition	0.046	0.015	0.106	3.034	9.206	0.002	0.011	0.010
Unrelenting standards/ excessive criticism	0.052	0.014	0.126	3.603	12.981	<0.001	0.016	0.015
Privilege/ sense of superiority	0.048	0.017	0.101	2.985	8.382	0.004	0.010	0.009
Insufficient self-control	0.043	0.014	0.107	3.071	9.434	0.002	0.012	0.010
Seeking approval and recognition	0.044	0.015	0.103	2.934	8.607	0.003	0.011	0.009
Pessimism	0.039	0.013	0.104	2.977	8.862	0.003	0.011	0.010
Propensity to punish	0.015	0.015	0.035	0.999	0.997	0.318	0.001	<0.001

*B* – unstandardized regression coefficient; *SE* – standard error;  $\beta$  – standardized regression coefficient; *t* – t-test value; *F* – F-test value; *p* – significance; *R*<sup>2</sup> – coefficient of determination; *sk. R*<sup>2</sup> – adjusted coefficient of determination. Source: own study.



Simple regression analyses with a single predictor showed that variation in emotional overeating could be predicted from most schemas. Only four schemas were found not to explain emotional overeating directly: defectiveness/shame, dependence/incompetence, self-sacrifice, and punitive tendencies. The predictors, while significant, explained emotional overeating only marginally – the percentage of explained variation ranged from 1 to 2.8%.

### Associations between Young's schemas and restrictive diets

In the following models, schemas were the explanatory variables, while restrictive diets was the explained variable. The pooled results of the regression analyses are presented in Table 4.

Table 4.

*Regression analysis for Young's schemas and their effect on restrictive diets*

Predictor	B	SE	$\beta$	<i>t</i>	<i>F</i>	<i>p</i>	<i>R</i> <sup>2</sup>	<i>sk. R</i> <sup>2</sup>
Emotional deprivation	0.047	0.017	0.094	2.676	7.159	0.008	0.009	0.008
Abandonment/bond instability	0.025	0.014	0.060	1.715	2.940	0.087	0.004	0.002
Distrust/hurt	0.038	0.018	0.076	2.168	4.698	0.030	0.006	0.005
Social isolation	0.060	0.017	0.120	3.438	11.820	0.001	0.014	0.013
Defection/shame	0.057	0.021	0.097	2.775	7.700	0.006	0.009	0.008
Failure	0.072	0.019	0.135	3.881	15.061	<0.001	0.018	0.017
Dependence/incompetence	0.033	0.020	0.058	1.652	2.728	0.099	0.003	0.002
Sense of insecurity	0.048	0.019	0.090	2.558	6.541	0.011	0.008	0.007
Emotional entanglement/ lack of self-identity	0.013	0.019	0.023	0.659	0.435	0.510	0.001	-0.001
Subjugation	0.085	0.019	0.155	4.448	19.788	<0.001	0.024	0.023
Self-sacrifice	0.025	0.017	0.051	1.453	2.111	0.147	0.003	0.001
Emotional inhibition	0.052	0.017	0.104	2.988	8.929	0.003	0.011	0.010
Unrelenting standards/ excessive criticism	0.037	0.016	0.080	2.278	5.188	0.023	0.006	0.005
Privilege/ sense of superiority	0.006	0.019	0.012	0.334	0.111	0.739	<0.001	-0.001
Insufficient self-control	0.023	0.016	0.051	1.450	2.102	0.148	0.003	0.001
Seeking approval and recognition	0.040	0.017	0.081	2.303	5.303	0.022	0.007	0.005
Pessimism	0.031	0.015	0.073	2.074	4.300	0.038	0.005	0.004
Propensity to punish	0.027	0.017	0.055	1.572	2.470	0.116	0.003	0.002

*B* – unstandardized regression coefficient; *SE* – standard error;  $\beta$  – standardized regression coefficient; *t* – t-test value; *F* – F-test value; *p* – significance; *R*<sup>2</sup> – coefficient of determination; *sk. R*<sup>2</sup> – adjusted coefficient of determination. Source: own study.

The analysis showed that emotional deprivation, distrust/hurt, social isolation, defectiveness/shame, failure, feeling threatened, subordination, emotional inhibition, absolute standards/excessive criticism, seeking approval and recognition, and pessimism were significant predictors of restrictive diets. All beta regression coefficients turned out to be positive, meaning that the higher the score on these predictors, the higher the level of restrictive diets. The percentage of explained variation of restrictive diets for each predictor is negligible, ranging from 0.4% to 2.3%. Although the primary focus was to explore the interdependence between early maladaptive schemas and maladaptive eating behaviours, the study also allowed for preliminary identification of individual schema patterns as significant, though weak, predictors of specific eating behaviour types. These findings offer an initial contribution to understanding the predictive role of EMS in relation to disordered eating, warranting further exploration in future studies with more complex statistical models.

## DISCUSSION

The research assumptions of the presented study are based on Young's concept, according to which a schema is formed because of the interaction of temperament and inadequately met emotional needs within early childhood bonds with important people (Arntz & van Genderen, 2020; Young et al., 2013). Schemas in this view include not only beliefs, but also memories, the emotional realm, and bodily sensations, and are largely dysfunctional for the individual. The dysfunctional role of schemas has been presented in numerous empirical studies, showing their association with personality disorders, depressive-anxiety disorders, eating disorders or addictions, among others (Camara & Calvete, 2012; Ghadimi et al., 2015, Nagata et al., 2018; Nordahl et al., 2005; Petrocelli et al., 2001, Reeves & Taylor, 2007).

The present study was focused on adult women with varying body weight. The study set out to analyse interrelationships between early maladaptive schemas and eating behaviours. The aim of the study was to identify predictors of maladaptive eating behaviours. Research questions focused on how schemas affect eating behaviour in terms of habitual and emotional overeating and dietary restrictions. Although the primary focus was to explore the interdependence between early maladaptive schemas and maladaptive eating behaviours, the study also allowed for preliminary identification of individual schema patterns as significant, though weak, predictors of specific eating behaviour types. These findings offer an initial contribution to understanding the predictive role of EMS in relation to disordered eating, warranting further exploration in future studies with more complex statistical models. The results obtained in the study made it possible to answer the posed research questions. In terms of the overall Eating Behaviour Questionnaire score,

16 schemas proved to be significant predictors. In emotional overeating – also 14 schemas. In dietary Restrictions, on the other hand, 12 schemas. In the analysis of predictors of habitual overeating, 9 schemas. All highlighted correlations were positive, meaning that as the schemas increased, the severity of the subjects' abnormal eating behaviour increased. Detailed results in this regard are shown in Tables 1-4. The percentage of variance explained in presented analyses was low and did not exceed 3%. Obtained results are consistent with other studies that showed correlations between the severity of maladaptive schemas, eating behaviours, and body mass (Palmieri et al., 2021). Interesting conclusions are also drawn from a total of 29 studies included in the review by (Maher et al., 2022). Compared to healthy controls and various clinical populations, individuals with eating disorders typically reported significantly higher scores on nearly all early maladaptive schemas. The present study showed that early maladaptive schemas exacerbate incorrect eating behaviours and they may thus pose a risk for weight gain or problems with eating control. Moreover, the analysis made it possible to identify several schema patterns – particularly social isolation, failure, emotional deprivation, distrust/hurt, sense of insecurity, and seeking approval and recognition – as consistent predictors across habitual overeating, emotional overeating, and restrictive dieting. While the individual predictive power of these schemas was small, their repeated significance across eating behaviour types suggests a potentially meaningful role in shaping maladaptive eating tendencies. Increased maladaptive schemas are known to increase the likelihood of experiencing psychophysical discomfort and stress (Gerges et al., 2022; Palmieri et al., 2021; Young et al., 2013). In turn, incorrect eating behaviours in the form of overeating and subsequent dietary restrictions are common coping strategies (Fairburn, 2013; House et al., 2022). In addition, it should also be noted that psychophysical discomfort and the tension it causes have a direct impact on a person's metabolism. Elevated cortisol levels, among other things, increase blood glucose levels and promote insulin resistance. Prolonged exposure of the body to cortisol hinders fat burning and causes fat gain in the long run (Abraham et al., 2013; van der Valk et al., 2018).

## CONCLUSIONS

Several significant results were obtained in the conducted study. They made it possible to answer the posed research questions. The information obtained enriches the knowledge of psychological factors affecting body weight potentially responsible for overweight and obesity. Early maladaptive schemas proved to be significant predictors of both abnormal eating behaviour and body weight. Early maladaptive schemas proved to be significant predictors of abnormal eating behaviour, including habitual and emotional overeating as well as restrictive dietary

patterns. While the predictive power of individual schemas was limited in terms of explained variance, consistent significance across multiple behaviour types highlights their potential relevance in shaping eating behaviour. As the percentage of explained variance in presented analyses was low, caution should be exercised in drawing conclusions from the study. Nevertheless, the result obtained shows important research tendencies and may indicate the direction of further scientific research, linking Young's schema theory to abnormal eating behaviour. In addition, the results obtained may provide practical implications related to the application of schema therapy in the treatment of eating disorders or excessive body weight. Conclusions and practical implications resulting from conducted research may contribute to such scientific disciplines as health education and health promotion or health psychology in connection with therapy and rehabilitation of patients.

### LIMITATIONS

Some limitations can also be seen in the study conducted. These include, for example, the lack of balancing the number of men and women in the study sample. Also, balancing the group and dividing it by their body weight could have yielded interesting results regarding the correlation of early maladaptive patterns with abnormal eating behaviours. The above remarks could inspire future research on the aforementioned topic.

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## OCENA WSPÓŁZALEŻNOŚCI WCZESNYCH DEZADAPTACYJNYCH SCHEMATÓW Z NIEPRAWIDŁOWYMI ZACHOWANIAMI ŻYWIENIOWYMI W GRUPIE KOBIET WE WCZESNEJ DOROSŁOŚCI

**Wprowadzenie:** Koncepcja Jeffreya Younga zakłada, że wczesny dezadaptacyjny schemat jest szerokim, dominującym motywem lub wzorcem, składającym się ze wspomnień, emocji, reakcji fizjologicznych i przekonań na temat siebie, innych ludzi i świata. W ostatnich latach coraz większy nacisk kładzie się na wczesne nieadaptacyjne schematy jako główną cechę związaną z psychopatologią odżywiania prowadzącą do nadwagi, otyłości i zaburzeń odżywiania.

**Cel badań:** Celem badania jest ocena współzależności wczesnych nieadaptacyjnych schematów z nieprawidłowymi zachowaniami żywieniowymi (nawykowe objadanie się, emocjonalne objadanie się, restrykcje dietetyczne). Badanie ma również na celu identyfikację predyktorów nieprawidłowych zachowań żywieniowych.

**Metoda badań:** W badaniu wzięło udział 560 kobiet w wieku od 19 do 25 lat. W badaniu mierzono nasilenie nieprawidłowych zachowań żywieniowych oraz wczesne nieadaptacyjne schematy wg koncepcji Jeffreya Younga. W badaniu wykorzystano polską adaptację Kwestionariusza Schematów Younga (YSQ) oraz Kwestionariusz Zachowań Związanych z Jedzeniem (KZZJ).

**Wyniki:** W odniesieniu do ogólnego wyniku Kwestionariusza Zachowań Żywieniowych oraz jego podskal — emocjonalnego objadania się, nawykowego objadania się i restrykcji dietetycznych — większość schematów wykazała istotne statystycznie zależności i okazała się istotnymi predyktorami w modelach regresji.

**Wnioski:** Uzyskany wynik wskazuje na istotne tendencje statystyczne pomiędzy badanymi zmiennymi i może wskazywać kierunek dalszych badań naukowych łączących teorię schematów Younga z nieprawidłowymi zachowaniami żywieniowymi.

**Słowa kluczowe:** nadwaga, zachowania żywieniowe, wczesne dezadaptacyjne schematy, kobiety w okresie wczesnej dorosłości