



## Trabajo Original

### Family eating habits, family support and subjective well-being in university students in Chile

#### *Hábitos de alimentación familiar, apoyo familiar y bienestar subjetivo en estudiantes universitarios en Chile*

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### Abstract

**Aim:** To characterize typologies of university students according to the perception of their families' eating habits.

**Material and method:** A questionnaire was applied to a non-probabilistic sample of 372 students of both genders at the Universidad de La Frontera, Temuco, Chile. The instrument included: the Family Eating Habits Questionnaire (FEHQ), the Satisfaction with Life Scale (SWLS), the Satisfaction with Food-related Life Scale (SWFL) and the Family Resources Scale (FRS). Estimated weight and height were asked about as well as sociodemographic variables.

**Results:** Using an exploratory factor analysis (EFA) three factors were detected in the FEHQ: importance of eating to family members, cohesiveness of family eating, and pressure to eat. The EFA detected two factors on the FRS: intangible and tangible support. A confirmatory factor analysis (CFA) validated the structure of the FEHQ and the FRS with good goodness-of-fit indicators. A cluster analysis distinguished four typologies that differed significantly in the scores of the components on the FEHQ and FRS, scores on the SWLS and SWFL, body mass index, gender and socioeconomic level. Typologies with higher scores in "cohesiveness of family eating" report greater intangible support from their families and higher scores on the SWLS and SWFL.

**Conclusions:** The results show that the frequency and importance assigned to family meals are associated positively with perceived family support, particularly in intangible resources, as well as with the overall satisfaction with life and in the food domain.

#### Key words:

Eating habits. Family. Satisfaction with life. Satisfaction with food-related life.

### Resumen

**Objetivo:** caracterizar tipologías de estudiantes universitarios según la percepción de los hábitos alimentarios de sus familias.

**Material y método:** se aplicó un cuestionario a una muestra no probabilística de 372 estudiantes de ambos géneros de la Universidad de La Frontera, Chile. El instrumento incluyó: Cuestionario de Hábitos Alimentarios Familiares (FEHQ), Satisfaction with Life Scale (SWLS), Satisfaction with Food-related Life (SWFL) y la Escala de Recursos Familiares (FRS). Se consultó peso y estatura aproximada, así como variables sociodemográficas.

**Resultados:** mediante análisis factorial exploratorio (AFE) se detectaron tres factores en el FEHQ: importancia de la alimentación para los miembros de la familia, cohesión en las comidas familiares y presión por comer. Mediante AFE se detectaron dos factores en la FRS: apoyo intangible y tangible. Mediante análisis factorial confirmatorio se validó la estructura del FEHQ y de la FRS con aceptables niveles de bondad de ajuste. Mediante análisis clúster se distinguieron cuatro tipologías que difirieron significativamente en las puntuaciones de los componentes del FEHQ y de la FRS, puntajes de la SWLS y SWFL, índice de masa corporal, género y nivel socioeconómico. Las tipologías con mayores puntuaciones en "cohesión en las comidas familiares" reportan mayor apoyo intangible de sus familias y superiores puntuaciones en la SWLS y SWFL.

**Conclusiones:** los resultados muestran que la frecuencia y la importancia asignada a las comidas en familia se asocian positivamente con el apoyo familiar percibido, especialmente en recursos intangibles, así como también con la satisfacción global con la vida y en el dominio de la alimentación.

#### Palabras clave:

Hábitos de alimentación. Familia. Satisfacción con la vida. Satisfacción con la alimentación.

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## INTRODUCTION

Food plays an important role in family interaction. Family meals act as a protective factor for members in several senses (1,2). Cross-sectional and longitudinal studies have shown a positive relation between the frequency of family meals and healthy eating habits (3-6), with a positive impact on life satisfaction and satisfaction with food-related life (7,8). Other studies have shown an inverse relation between the frequency of family meals and body weight of parents and children (9), a relation that may protect against overweight and obesity (5), positively influencing life satisfaction and satisfaction with food-related life (7,8). Family meals are also often described as a moment of cohesion, sharing and communication: the family eat and talk, a flow of words and food. The family group unifies during mealtime. Cohesion is generated by eating together (1,5), which is associated with greater family support (4,8) and a more supportive home environment (10), constituting a protective factor for well-being, due to its positive association with social competences, future prospects and self-esteem (6,11,12). However, although the positive effect related to family meals is well established, it is less clear what aspects of the family eating habits relate to higher levels of life satisfaction and satisfaction with food-related life.

Nevertheless, previous research has consistently suggested that the frequency of family meals decreases substantially as adolescents move into young adulthood (10,11). The period of university studies is usually the first time youth take responsibility for their meals; therefore, this critical stage in the development of eating habits will affect their future health (13,14). Some studies in Chile, however, indicate that a significant number of students live with their parents during their university years and experience a higher degree of life satisfaction than their counterparts who study away from home (7,8). In addition, it has been reported that university students living with their family have more healthful eating habits (7,8,14-16), which relate to higher satisfaction with their life and food-related life and a lower prevalence of overweight and obesity (7,8).

However, individualized eating where people eat alone or separately from other family members is also occurring (5), and is frequent in the case of university students even when they live with their family during the study period due to scheduling incompatibilities (8,17). This implies that the positive or protective effect of family meals on young adults (like university students) associated with eating healthy behaviors (3,5,6) is being lost. Research has also shown that outcomes related to parental modeling in dietary behaviors and choices can be both positive and negative, depending on the parents' behaviors and the behaviors being copied (18). The family's sociodemographic characteristics also influence family meals and eating habits: the frequency and quality of family meals are associated with the level of family income (3,19) and parents' occupations (5), as well as with the children's ages (3,10,11) and genders (3,20), among others. However, a less studied aspect is whether different family eating habits and the family's sociodemographic characteristics can be expressed in terms of profiles of university students that may differ in their

levels of life satisfaction, satisfaction with food-related life, family support and nutritional status.

Therefore, in this research a typology of university students from southern Chile was developed based on the perception of their family's eating habits. The types were characterized by the support they receive from their family, their level of life satisfaction and satisfaction with food-related life, nutritional status and sociodemographic characteristics. In this study, it is expected that family interaction around eating will be corroborated as being beneficial for university students (7,8).

## METHOD

### PARTICIPANTS

A non-probabilistic sample was comprised of 372 university students belonging to the six faculties of the Universidad de La Frontera in Temuco, Chile. The respondent distribution is representative of the total number of students in each faculty. The inclusion criterion was being a student enrolled at the Universidad de La Frontera at the time of the survey.

### PROCEDURE

Students were contacted on campus and once they agreed to participate, they were asked to sign an informed consent prior to application of the survey. A trained surveyor administered the questionnaires personally, during October and November 2014, and proper procedures were followed to ensure respondent anonymity. Prior to the application of the survey, the questionnaire was validated by a preliminary test with 10% of the survey sample. The preliminary test was done using the same method of addressing the participants as in the definitive survey. As the validation of the instrument was satisfactory, no changes were required in either the questionnaire or the interview procedure. The Ethics Committee of the Universidad de La Frontera approved the study.

### INSTRUMENTS

The questionnaire included the following scales:

- *Family Eating Habits Questionnaire* (FEHQ; Klempel et al. [2]): Consistent of 14 items to assess how individuals perceive their family's eating habits: "My family eats large meals"; "Meals are an important part of my family life"; "In my family, members are encouraged to have second helpings at meals"; "Healthy meals are prepared in my family"; "Eating together is the most important part of our holidays and celebrations"; "If I am eating less than usual, family members become concerned"; "Eating is an important part of my family life"; "In my family, large portions of foods are served"; "Family members pressure me to eat even if I am not hungry"; "My family takes a long time to finish a

meal together”; “My family members suggest eating when I seem stressed out or upset”; “All of my family members eat together on a regular basis”; “Healthy eating is encouraged in my family”; “My family members try to eat together whenever possible”. Respondents were asked to score each item on a 5-level Likert scale (1 = *never*, 5 = *always*). Using a principal components analysis (PCA), Klempel et al. (2) identified four components with 72% of the total variance of the scoring responses.

- *Satisfaction with Life Scale* (SWLS; Diener et al. [21]) and *Satisfaction with Food-related Life* (SWFL; Grunert et al. [22]): The SWLS is a 5-item scale to evaluate overall cognitive judgments about a person’s own life. The SWFL is a similar scale that evaluates cognitive judgments on the person’s food-related life. In each scale respondents must indicate their degree of agreement with the statements using a 6-point Likert scale (1 = *disagree completely*, 6 = *agree completely*). This study used the Spanish versions of the SWLS and SWFL, which have shown good levels of internal consistency in previous studies in Chile (7,8,23).
- *Family Resources Scale* (FRS; Rindfleisch et al. [24]): it contains 5-point statements (1 = *little or no support*, 5 = *a lot of support*) used to measure the amount of support a person receives from his/her family. Respondents must indicate the amount of total support provided by their family for each of the following categories: spending money; food; clothing; time and attention; discipline; emotional support and love; life skills and instruction; role modeling and guidance. The items have been used as two subscales to separately measure intangible and tangible support. Cronbach’s  $\alpha$  of 0.90 have been reported for the full version of the scale (24). This study used the Spanish version of the FRS, which has shown good levels of internal consistency in a previous study in Chile (8).
- *Sociodemographic data*: classification questions were included to establish gender, age, area of residence, place of residence during the semester, and –to determine socio-economic status (SES) (25) educational level and occupation of the head of the household. Finally, their estimated weight and height were consulted in order to obtain their body mass index (BMI, kg/m<sup>2</sup>).

## DATA ANALYSES

Given that the psychometric properties of the FEHQ and FRS have not been previously studied in university students in South America, an exploratory factor analysis (EFA) was used for each scale followed by a confirmatory factor analysis (CFA). The EFA was implemented using SPSS 16.0 and the CFA using LISREL 8.8. Parameters were estimated by robust maximum likelihood. The variance extracted by the indicator variables of the latent factors was calculated. This indicator measures the proportion of variance extracted by a latent factor with respect to the total variance of that factor, including variances of the measurement error of the factor items (26). Compound reliability

was obtained by an adaptation of Fornell and Larcker’s formula (26), which calculates the proportion between the sum of the standardized factor loadings of the items of a factor (indicator variables) squared and the same amount plus the error variances associated with the items. Convergent validity was found by inspecting the significance of the t values of the factor loadings for each factor. Discriminant validity was obtained by comparing the extracted variance against the correlation between two factors. This test compares the extracted variance for each of the factors analyzed with the square of the correlation between the factors. The extracted variance for the factors must be greater than the value of the correlation; if this condition is fulfilled, it may be concluded that discriminant validity exists between the factors (26). A CFA model fits reasonably well if the goodness-of-fit index (GFI) and the adjusted goodness-of-fit index (AGFI) are greater than 0.90, and if the root mean square error of approximation (RMSEA) is lower than 0.08 (26).

To distinguish student types based on the perception of their family’s eating habits, a cluster analysis (hierarchical conglomerates) was used, with linkage by Ward’s method and the squared Euclidian distance as the measure of similarity between objects. This analysis was applied to the Z-scores resulting from the factor analysis of the FEHQ scale. The number of groups was obtained by the percentage change of the recomposed conglomeration coefficients. To describe the segments, Pearson’s Chi<sup>2</sup> test was applied to the discrete variables and a one-factor analysis of variance for the continuous variables. Because Levene’s test indicated non-homogenous variances, the averages of variables with significant differences ( $p \leq 0.001$  or  $p \leq 0.05$ ) were separated according to Dunnett’s T3 test for multiple comparisons.

## RESULTS

The mean age of the sample was 20.4 years (SD = 2.4). 56.5% were women and 90.3% resided in an urban area. The sample was comprised mainly of students living with their parents all year round (65.5%) or living with their parents on weekends or for vacations (18.7%). For its part, 32.5% of the sample belonged to the middle-middle SES, 25.0% to lower-middle and 35.5% to the low SES.

Both the SWLS and SWFL presented adequate levels of internal consistency (Cronbach’s  $\alpha = 0.829$  and 0.868, respectively) and a single factor grouped the five items of each scale (explained variance: 65.7 and 62.3%, respectively). The average score for the SWLS was 22.6 (SD = 4.4) and for the SWFL 21.2 (SD = 5.1), from a theoretical maximum score of 30. The average BMI of the sample was 24.2 kg/m<sup>2</sup> (SD = 3.5).

Using EFA three components were detected on the FEHQ that grouped 10 of the 14 original items (Table I), with an explained variance of 65.6%: “Importance of eating to family members” (henceforth “Importance”), “Cohesiveness of family eating” (henceforth “Cohesiveness”), and “Pressure to eat” (henceforth “Pressure”). Items “Healthy meals are prepared in my family” and “My family takes a long time to finish a meal together” were eliminated because they presented communality values below

**Table I.** Results of exploratory factor analysis for the Family Eating Habits Questionnaire (FEHQ) in university students from southern Chile, November 2014

Items	Component		
	Importance of eating to family members	Cohesiveness of family eating	Pressure to eat
F1 My family eats large meals	0.845	0.143	0.050
F2 In my family, large portions of foods are served	0.827	0.098	0.285
F3 In my family, members are encouraged to have second helpings at meals	0.797	0.066	0.162
F4 Eating together is the most important part of our holidays and celebrations	0.001	0.808	0.165
F5 All of my family members eat together on a regular basis	- 0.041	0.731	0.033
F6 Eating is an important part of my family life	0.351	0.727	0.100
F7 Meals are an important part of my family life	0.479	0.669	0.027
F8 My family members suggest eating when I seem stressed out or upset	0.066	- 0.022	0.772
F9 Family members pressure me to eat even if I am not hungry	0.289	0.051	0.762
F10 If I am eating less than usual, family members become concerned	0.090	0.339	0.662
Variance explained by component (%)	24.84	23.15	17.64
Cumulative variance (%)	24.84	47.99	65.63
Cronbach's $\alpha$ per component	0.821	0.767	0.733

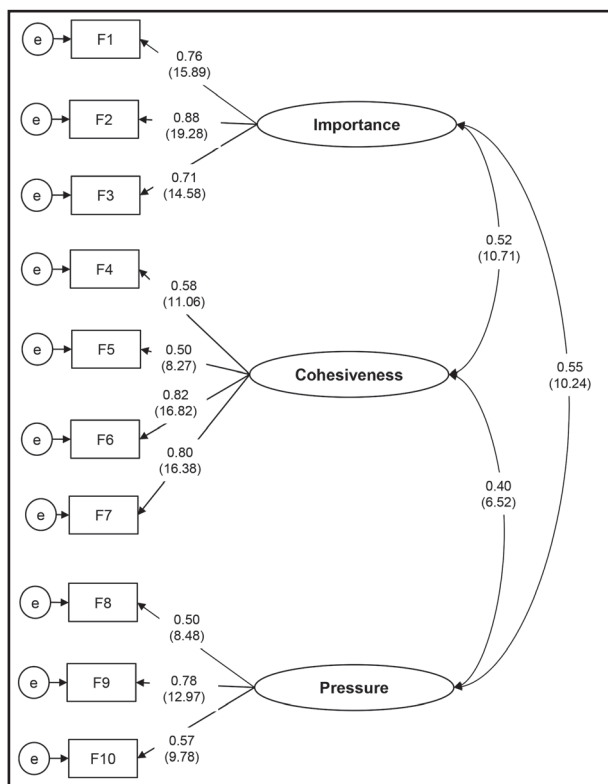
Extraction method: Principal components analysis; Rotation method: Varimax with Kaiser normalization. Rotation has converged in 5 iterations. Measure of sampling adequacy: Keiser-Meyer-Olkin (KMO) = 0.806. Bartlett's Test of Sphericity, approximate Chi-square = 1,211.083; df = 45; p = 0.000. Note: The remaining item should qualify the following standards: The eigenvalues of each extracted factor should be more than 1.000; the factor loadings of each reserved item should be more than 0.40; each item should be only loaded on a single factor; each factor should include at least 3 items.

0.4. Items "Healthy eating is encouraged in my family" and "My family members try to eat together whenever possible" were eliminated because they did not load on a single factor. In this respect, with the need to eliminate items related to the promotion of healthy eating by the family, the component "Healthy eating" found by the authors of the FEHQ (2) could not be detected. For the remaining items the three components presented an acceptable level of internal consistency. The CFA performed with the ten items of the FEHQ meant that the three-component structure could be validated with an acceptable goodness-of-fit (RMSEA = 0.078, GFI = 0.95, AGFI = 0.91). The standardized factor loadings for the ten items were statistically significant; therefore, it may be concluded that there is convergent validity. Three components presented acceptable values of extracted variance (Importance = 0.618, Cohesiveness = 0.474, Pressure = 0.394). The three components presented acceptable or good values of compound reliability (Importance = 0.828, Cohesiveness = 0.776, Pressure = 0.653). The values of the squared correlation between Importance and Cohesiveness (0.27), Importance and Pressure (0.16) and Cohesiveness and Pressure (0.30) were lower than the extracted variances of this components, which verifies the discriminant validity between the constructs studied (Fig. 1).

Consistent with the results of Rindfleisch et al. (24) and Schnettler et al. (8), using an EFA two subscales or components were detected on the FRS that grouped seven of the eight original items (73.8% explained variance). The components obtained

match those detected by these authors (8,24), corresponding to "intangible support" and "tangible support" (Table II). The alphas of both subscales were also close to those reported by previous authors (8,24). Nevertheless, similar to what was obtained by Schnettler et al. (8), the item "Life skills and instruction" had to be eliminated because it did not load on a single factor. The elimination of this item is probably related to the composition of the sample, university students, for which it is assumed that all or most of them are receiving support from their families to study. The CFA performed with the seven items of the FRS meant that the bifactorial structure could be validated with a good goodness-of-fit (RMSEA = 0.069, GFI = 0.97, AGFI = 0.94). The standardized factor loadings for the seven items were statistically significant; therefore, it may be concluded that there is convergent validity. Both subscales presented good values of extracted variance (intangible support = 0.626, tangible support = 0.645). Both subscales presented good values of compound reliability (intangible support = 0.869, tangible support = 0.844). The value of the squared correlation between intangible and tangible support (0.39) was lower than the extracted variances of both subscales, which verifies the discriminant validity between the constructs studied (Fig. 2).

Using a cluster analysis, four student types were detected with significant differences in the Z-scores (Table III) of the three components obtained from the FEHQ ( $p \leq 0.001$ ). The types also differed in the Z-scores of the intangible support ( $p \leq 0.001$ ) and



**Figure 1.**

Confirmatory factor analysis established best-fitting model of Family Eating Habits Questionnaire (FEHQ) in a university student sample. Values not in parentheses correspond to standardized factor loadings. Values in parentheses correspond to t values. Standardized factor loadings for all the items were statistically significant ( $p \leq 0.001$ ).

the tangible support ( $p \leq 0.05$ ) subscales from the FRS (Table IV). The types differed significantly in the scores of the SWLS, SWFL and BMI ( $p \leq 0.001$ ) (Table V). They also differed in SES ( $p \leq 0.05$ ) and gender ( $p \leq 0.001$ ) (Table VI).

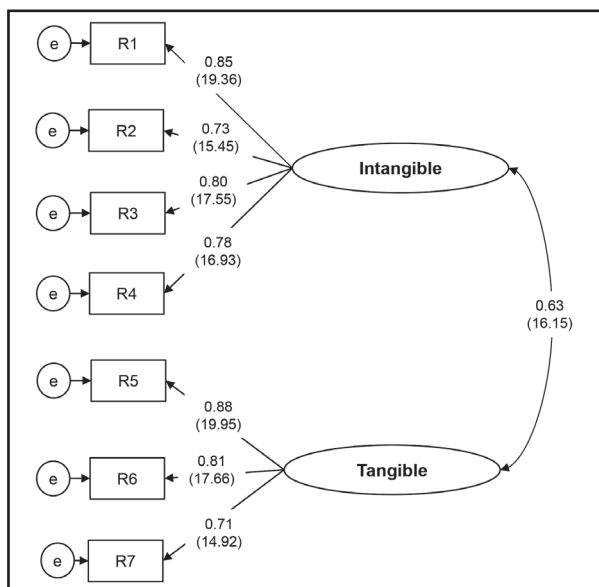
**Group 1 "Eating is of little relevance to their families" (24.2%):** Participants in this group had low scores in the three components on the FEHQ, but this stands out for the significantly lower score in "Cohesiveness" (Table III). This group had the lowest score on the "intangible support" subscale from the FRS. In "tangible support" Group 1 had a low score, but similar to those from groups 2 and 3 (Table IV). Group 1 had the lowest scores on the SWLS and SWFL, although it did not differ statistically from Group 2. Group 1 had the highest BMI, significantly higher than the other groups (Table V).

**Group 2 "Pressured to eat" (25.0%):** This group scored significantly higher than the others in "Pressure" (Table III). Group 2 had a low score in "Cohesiveness", significantly lower than groups 3 and 4. Group 2 had low scores in "intangible support" (Table IV), SWLS and SWFL, significantly lower than groups 3 and 4. This group had the lowest BMI, significantly lower than the rest (Table V). This group was composed of a higher proportion of men (60.2%), and those belonging to the low SES (Table VI).

**Table II.** Results of exploratory factor analysis for the Family Recourses Scale (FRS) in university students from southern Chile, November 2014

Scale item	Component	
	Intangible support	Tangible support
R1. Emotional support and love	0.850	0.248
R2. Role modeling and guidance	0.809	0.165
R3. Time and attention	0.785	0.301
R4. Discipline	0.782	0.285
R5. Clothing	0.247	0.876
R6. Spending money	0.250	0.834
R7. Food	0.251	0.789
Explained variance per component (%)	39.87	33.52
Accumulated variance (%)	39.87	73.79
$\alpha$ Cronbach per component	0.873	0.841

Extraction method: Principal component analysis; Rotation method: Varimax with Kaiser normalization. Rotation has converged in 3 iterations. Keiser-Meyer-Olkin (KMO) Measure of sampling adequacy = 0.848. Bartlett's test of sphericity, approximate Chi-square = 1,331.484;  $df = 21$ ;  $p = 0.000$ . Note: The remaining item should qualify the following standards: The eigenvalues of each extracted factor should be more than 1.000; the factor loadings of each reserved item should be more than 0.40; each item should be only loaded on a single factor; each factor should include at least 3 items.



**Figure 2.**

Confirmatory factor analysis established best-fitting model of Family Resources Scale (FRS) in a university student sample. Values not in parentheses correspond to standardized factor loadings. Values in parentheses correspond to t values. Standardized factor loadings for all the items were statistically significant ( $p \leq 0.001$ ).

**Table III.** Mean Z-scores from the components of the Family Eating Habits Questionnaire (FEHQ) scores for the four clusters in university students from southern Chile, November 2014

Component	Group 1 (n = 90)	Group 2 (n = 93)	Group 3 (n = 89)	Group 4 (n = 100)	F	p-value
Importance of eating to family members	- 0.318 b	- 0.070 b	- 0.731 c	1.002 a	90.629	0.000 **
Cohesiveness of family eating	- 1.318 d	0.034 c	0.840 a	0.407 b	214.131	0.000 **
Pressure to eat	- 0.387 b	1.274 a	- 0.443 b	- 0.442 b	145.960	0.000 **

\*\*Significant at 1%. Letters in horizontal orientation indicate statically significant differences according to Dunnett's T3 Comparison test ( $p \leq 0.001$ ), for non-homogeneous variables.

**Table IV.** Mean Z-scores from the components of the Family Resources Scale (FRS) scores for the four clusters in university students from southern Chile, November 2014

Component	Group 1 (n = 90)	Group 2 (n = 93)	Group 3 (n = 89)	Group 4 (n = 100)	F	p-value
Intangible resources	- 0.435 c	- 0.083 b	0.351 a	0.284 a	11.165	0.000 **
Tangible resources	- 0.059 ab	- 0.189 b	0.016 ab	0.215 a	2.758	0.040 *

\*Significant at 5%. \*\*Significant at 1%. Different letters in vertical lines indicate statically significant differences according to Dunnett's T3 Comparison test ( $p \leq 0.001$ ), for non-homogenous variances.

**Table V.** Average scores for the Satisfaction with Life (SWLS) and Satisfaction with Food-related Life (SWFL) scales and body mass index (BMI) in groups obtained by cluster analysis in university students from southern Chile, November 2014

	Group 1 (n = 90)	Group 2 (n = 93)	Group 3 (n = 89)	Group 4 (n = 100)	F	p-value
SWLS	21.37 b	21.55 b	24.35 a	23.99 a	9.704	0.000 **
SWFL	19.01 b	19.13 b	22.39 a	22.30 a	9.165	0.000 **
BMI	26.50 a	22.48 c	23.51 b	23.32 b	6.438	0.000 **

\*\*Significant at 1%. Letters in horizontal orientation indicate statically significant differences according to Dunnett's T3 Comparison test, for non-homogeneous variables.

*Group 3 "Enjoy the cohesiveness of family eating" (23.9%):* This group scored significantly higher than the others in "Cohesiveness" (Table III). Group 3 had the highest scores in "intangible support" (Table IV) and SWLS y SWFL scales (Table V), although it did not differ statistically from Group 4. The average BMI in this group was significantly lower than in Group 1. This group was composed of a higher proportion of women (71.9%), and those belonging to the middle-middle SES (Table VI).

*Group 4 "Eating is very important to their family" (26.9%):* This group had a significantly higher "Importance" score than the other groups. Group 4 had a positive score in "Cohesiveness", but significantly lower than Group 3 (Table III). Group 4 had the highest score in "tangible support", although it did not differ statistically from groups 1 and 3 (Table IV). The average BMI in Group 4 did not differ statistically from Group 3 (Table V).

## DISCUSSION

This study focused on distinguishing types of university students who differ in the perception of their family's eating habits and characterized the types according to the support they receive from their families, their level of life satisfaction and satisfaction with food-related life, nutritional status, and sociodemographic characteristics. On this basis, four types were distinguished that differed in scores of the three components detected in the FEHQ. However, the component in which the four types differed significantly was "Cohesiveness of family eating", which gives account of the relevance of family meals in the life of the members of the family group, eating together frequently, and the association between meals and celebrations. In this regard, eating is often described as a primary biological function, but can also be characterized

**Table VI. Characteristics (%) with statistically significant differences in groups of university students from southern Chile obtained by cluster analysis, November 2014**

	Group 1 (n = 90)	Group 2 (n = 93)	Group 3 (n = 89)	Group 4 (n = 100)
Gender	p = 0.000			
Male	42.2	60.2	28.1	43.0
Female	57.8	39.8	71.9	57.0
SES	p = 0.022			
ABC1 (high-upper middle)	16.7	7.5	18.0	17.0
C2 (middle-middle)	34.4	24.7	43.8	28.0
C3 (lower middle)	23.3	25.8	22.5	28.0
D (low)	22.2	35.5	12.4	21.0
E (very low)	3.3	6.5	3.4	6.0

*p* value corresponds to the (bilateral) asymptotic significance obtained in Pearson's Chi squared test.

as a primary social function (27). However, it becomes increasingly difficult to make all mealtimes social occasions. Everyday meals have become more exceptional and families spend less time together (17). One of the related causes is the impossibility of reconciling schedules among family members, because work schedules differ in many cases from study schedules (8,17). Nevertheless, the results of this study indicate that there are students whose family groups value sharing time as a family during meals and try to preserve this practice. The student types termed *"Enjoy the cohesiveness of family eating"* (Group 3) and *"Eating is very important to their family"* (Group 4) presented the highest scores in "Cohesiveness", which is consistent with the highest scores obtained in "intangible support" from the FRS, which involves emotional support, love and attention from parents. The opposite occurs for the types termed *"Eating is of little relevance to their families"* (Group 1) and *"Pressured to eat"* (Group 2), who scored the lowest in "Cohesiveness" on the FEHQ and in "intangible support". These results agree with studies that indicate that the frequency of family meals (which is implicit in the "Cohesiveness" component) represents an important ritual of interaction between family members, in which they express their love for one another (1); the family stays close, family conflicts are resolved and family unity is encouraged (1,2,12). Likewise, they agree with studies that report that a greater frequency of family meals is associated with greater family support (4,8). Moreover, the significantly higher scores of groups 3 and 4 in the "Cohesiveness" component is also consistent with studies showing that the frequency of family meals is associated with greater life satisfaction and satisfaction

with food-related life in university students (7,8). Indeed, family mealtimes may help to build family relationships, which may subsequently help to promote well-being (6,11,12).

In relation to types that differed significantly from the total sample in their sociodemographic characteristics, Group 2 was comprised of a greater proportion of students belonging to the low SES. This agrees with studies that report that those of low SES tend to eat less frequent family meals (3,19), which is consistent with the low score of this type in "Cohesiveness". Likewise, the lowest score in "tangible support" agrees with previous studies associating less economic support from the family with lower levels of life satisfaction and satisfaction with food-related life in university students (8). In terms of gender, the greater presence of women in Group 3 and the higher proportion of men in Group 2 are in line with studies into adolescents that suggest that mealtime experiences may differ for girls and boys, with girls being more influenced by family relationships, which may enable them to benefit more from the shared meal experience (20). The results of this study make it possible to suggest that this is maintained in early adulthood during the period of university studies.

In relation to BMI, groups 2, 3 and 4 presented average BMIs in the normal weight range. Only Group 1 presented a BMI in the overweight range. The higher score in "Cohesiveness" of the first two types is consistent with the results of longitudinal studies that show a positive association between the frequency of family meals, healthy eating habits (6,11) and normal BMIs. Also consistent is the low score of Group 1 in "Cohesiveness" and their significantly higher BMI. However, a positive association between frequency of family meals with BMI is not always confirmed (6). This may be the case of Group 2, whose score in "Cohesiveness" is low and their average BMI is significantly lower than the other groups. Although the low score of this type in "Cohesiveness" may show that students in this group perceive their family as not lending importance to eating from the point of view of social interaction, it is possible to hypothesize that the high score of this type in the "Pressure" component could be related to their family's concern for eating from the nutritional point of view. This could demonstrate cultural influence. In this regard, in Chilean culture it is common to encourage people who look thin to eat more, which is related to concern for health. This is to say, thinness is usually related to some existing disease or to the possibility of becoming ill. However, further research is needed to verify this relation. It is noteworthy, however, that in "Pressure" eating is also encouraged as a way to escape problems, which can be interpreted as a negative outcome of parental modeling (18).

In relation to Group 4, its significantly higher score in "Importance" in the FEHQ may also be related to a cultural aspect, because in Chile one way of showing love is through abundant meals and not just in eating frequently as a family (1). Although this result will have to be explored more deeply in future investigations, it is consistent with the greater support received by students in this typology from their families, in both tangible and intangible support.

Although Group 1 scored significantly lower than groups 3 and 4 on the SWLS and SWFL, when the scores of the SWLS were categorized in satisfaction levels, the three typologies were in the range

“satisfied with their life”. The same does not occur when applied to the SWFL, because Group 1 is in the category “moderately satisfied with their food-related life” and the other two groups are in the category “satisfied with their food-related life”. This is to say, the mean level of satisfaction with their food-related life of Group 1 may not impact too negatively on their degree of life satisfaction. Similar results are obtained with the same analysis in relation to Group 2. In this regard, it may be suggested that these students are experiencing greater satisfaction in different domains of life than from those studied here. A previous study suggests that similar levels of satisfaction with life and with food-related life may be associated with satisfaction in different life domains; thus, satisfaction in some domains counterbalances lower satisfaction in others (23).

Therefore, the results of this study show that the frequency and importance assigned to family meals are associated positively with the perceived family support, particularly in intangible resources, as well as with overall life satisfaction and in the food domain. On this basis, it is suggested that family meals be promoted, particularly in families with a low SES and daughters. Apart from the nutritional (6,9) and social benefits (1,5,6,11,12) and for subjective well-being (6-8,11,12), family meals are associated with a decreased risk for unhealthy weight control practices, substance use, sexual intercourse and suicidal involvement (3).

Limitations of this study include the non-probabilistic nature of the sample and its relatively small size, which does not allow generalization of the results. Also, all data were self-reported, thus responses may be affected by social desirability, recall or response bias. Another limitation of the study is that the questionnaire did not include questions about the frequency of family meals or refer to eating habits of the students and their families; thus, these results cannot be associated with their diets' nutritional quality. These aspects must be explored in future studies.

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