[Artículo empírico]

10.22402/j.rdipycs.unam.e.9.2.2023.502

e922023502

La Relación entre los conceptos de bienestar y estilo de vida de los habitantes de la Ciudad de México

Olga Flores-Cano

Facultad de Psicología UNAM

RESUMEN

El objetivo fue definir y determinar la relación del bienestar y estilo de vida de habitantes de la Ciudad de México. El estilo de vida es un concepto que apoya el bienestar, criterio importante para el éxito de una sociedad. MÉTODO: La muestra fue de N=201, 52% mujeres y 48% hombres, voluntarios –con consentimiento informado, sin incentivos—, de 20 años y más, Media=39.97 años, D.E.=13.56 años. Por medio de la técnica de redes semánticas se obtuvieron cinco palabras relacionadas para bienestar y estilo de vida. Los análisis fueron descriptivos e inferenciales (IBM SPSS 25) y de distancias geodésicas (Gephi 0.9.5). RESULTADOS: El bienestar y el estilo fueron sistemas sociales complejos (fenómeno de mundo pequeño y emergencia). El bienestar se relacionó con salud, relaciones significativas y recursos; el estilo de vida, con salud, actitudes, identidad y capital social. CONCLUSIONES: El bienestar y el estilo de vida se relacionaron positiva y moderadamente. La organización del estilo de vida conectó lo social con lo individual o personal, así como lo interior con la imagen exterior y los contextos de la vida.

Palabras Clave:

Bienestar subjetivo, estilo de vida, redes semánticas, grafos, Ciudad de México

THE RELATION BETWEEN THE CONCEPTS OF WELL-BEING AND LIFESTYLE OF THE INHABITANTS OF MEXICO CITY

ABSTRACT

The objective was to define the concepts of well-being and lifestyle with the use of semantic networks technique, addressing both the cultural background and the non-linearity of the concepts in dwellers of Mexico City and find the relation between them. Lifestyle is a modern term related to attitudes and behaviors which occur in various domains of daily life. The study of lifestyle might help to find patterns that affect well-being, an important criterion to support a successful society, but that differs among people considering culture. METHOD: The sample was N=201, 52% female and 48% male, volunteers --informed consent provided, no incentives--, 20 years and older, mean=39.97 years, S.D.=13.56 years. Participants were asked (from May to August of 2018) to provide five or more words to define well-being, and lifestyle. The analysis included descriptive and inferential statistical analysis (IBM SPSS 25), as well as geodesic distances analysis (Gephi 0.9.5). RESULTS: Well-being and lifestyle graphs were social complex systems, with small world phenomenon and emergence. Well-being was an affective and cognitive evaluation of life, with health, relationships, and resources domains. Lifestyle was an attitudinal concept with health, attitudes, identity, and social capital contents. DISCUSSION AND CONCLUSIONS: Well-being and lifestyle showed a moderate positive correlation. They had health and family as main nodes but differed about how work and health were related. Lifestyle organization connects the social to the individual or personal self, as well as the interior to the exterior image and contexts of life.

Kevwords:

Well-being, lifestyle, semantic networks, graph, Mexico City

BITÁCORA DEL ARTÍCULO:

Recibido: 6 de diciembre de 2022 Aceptado: 31 de julio de 2023 Publicado en línea: Julio - Diciembre de 2023 P



AUTORÍA Y DERECHOS DE PROPIEDAD INTELECTUAL

THE RELATION BETWEEN THE CONCEPTS OF WELL-BEING AND LIFESTYLE OF THE INHABITANTS OF MEXICO CITY

Olga Flores-Cano Facultad de Psicología UNAM



Olga Flores-Cano Facultad de Psicología, UNAM Correo: olgabfc@gmail.com

Técnica Académica Titular A de Tiempo Completo Definitiva, adscrita al Posgrado en el área de Psicología Social. Desarrolla labores de docencia e investigación. Llevó a cabo estudios en la Facultad de Psicología de la UNAM de licenciatura y doctorado en psicología. Ha colaborado en proyectos de investigación como Percepción y comunicación de riesgos ambientales con énfasis en cambio climático y calidad de vida (PAPIIT IN309119) Dimensiones ambientales en el bienestar subjetivo y en la calidad de vida (PAPIIT IN305413-3) (2013-2015) y Estudio de Cultura del Agua CONAGUA, llngen, Facultad de Psicología (2013), entre otros. Se le distinguió con la Cátedra Especial José Gómez Robleda con la que llevó a cabo una investigación sobre el bienestar durante la pandemia por COVID-19.

CONTRIBUCIÓN DE LOS AUTORES

The author is acknowledged for the creation of this work.

AGRADECIMIENTOS

Dra. Sofía Rivera Aragón, Dr. Ricardo Lino Mansilla Corona, Dr. José Marcos Bustos Aguayo, and to the participants who volunteered to answer the questionnaire, thank you!

DATOS DE FILIACIÓN DEL AUTOR

Facultad de Psicología, UNAM.



Copyright: © 2023 Flores-Cano, O.

Este es un artículo de acceso abierto distribuido bajo los términos de la licencia Creative Commons Reconocimiento-NoComercial 4.0 Internacional, por lo que su contenido gráfico y escrito se puede compartir, copiar y redistribuir total o parcialmente sin necesidad de permiso expreso de su autor con la única condición de que no se puede usar con fines directamente comerciales y los términos legales de cualquier trabajo derivado deben ser los mismos que se expresan en la presente declaración. La única condición es que se cite la fuente con referencia a la Revista Digital Internacional de Psicología y Ciencia Social y a su autor.



TABLA DE CONTENIDO	
Lifestyle and well-being, 5	
Semantic networks, 6	
METHOD	7
Sample, 7	
Instruments, 7	
Procedure, 7	
Analysis, 7	
RESULTS	7
Well-being and lifestyle defined by semantic networks , 8	
Correlation between well-being and lifestyle, 8	
Well-being graph to obtain the definition of well-being, 8	
Lifestyle graph to obtain the definition of lifestyle, 11	
Analysis of correspondence to show the organization of the words (nodes) of lifestyle, 14	
DISCUSSION	14
Well-being graphs, 14	
Lifestyle graph, 16	
Organization of the lifestyle elements, 16	
CONCLUSIONS	17
Limitations and further, 17	
REFERENCES	17

ifestyle is a modern term that encompasses different components such as attitudes, practices, beliefs, √values, and behaviors (Gough, 2014; Spellerberg, 2014; Evans in Teo, 2014), as well as particular elements such as biographic experiences, consumer culture and aspirations (Graham & White, 2016) which are commonly regarded as indices of personal or social identity, status and power (Evans, 2014, P.1087). As a whole, it constitutes a stable pattern of activities and choices of daily living, and it may include "clothes, food, leisure pursuits, home, car, and bodily appearance." (Becker & Lois, 2014), is associated with expressive and symbolic meaning, which includes the concept of taste (Spellerberg, 2014) and is thought within a popular rhetoric as a personal 'choice', which goes from the individual preferences by intermediaries and social constraints that shape them, which in turn partly shape their very own communities (or "habitus") so it may refer both to individual and to group preferences (Gough, 2014). Also, lifestyle can be a way to address the social organization put into classes, strata, socioeconomic status and other indicators which reflect a differentiation that might attest to inequality, stratification, class models and social comparison (Spellerberg, 2014).

Lifestyle occurs in various domains like culture, leisure, jobs, family, household type, consumption habits and resources, and health which is one of the salient areas of study (Spellerberg, 2014) due to the economic and social changes that led to an epidemiological change due to the industrialization and urbanization, consumption-based lifestyles, especially of the affluent societies which led into an increase in aging population and in non-transmittable diseases, lifestyle diseases, (e.g., coronary heart disease, colon cancer, diabetes) which observe inadequate lifestyle patterns (Graham & White, 2016).

But the sole lifestyle health perspective is not enough, since the behaviors take place socially, culturally, temporally (historically), which means, a health perspective may be too short to address a context that includes customs, habits, environment offerings, etc. So, a lifestyle psychology "offers the study of the antecedents, consequences and interactions of lifestyle behaviors" (Thirlaway & Upton, 2009, p. 11). Lifestyle models and environment include explanations based in social processes, so environmental theories include the study of factors like poverty, foodstuffs, environmental hormones, solar radiation, pollution, medicines, chemicals, substandard housing, sanitation, population density and the biological environment, which are associated with public policies, and even consider societal and political responsibility (Thirlaway & Upton, 2009).

Other ways to analyze lifestyle include type of culture activities (highbrow/lowbrow), involvement or participation (active/passive), context (indoor/outdoor), interaction (individual/collective) which provide group-specific identities since they function as group boundaries (Becker & Lois, 2014). People will seek to understand, have guidance and support within the association to others with similar habits, values, and goals (e.g., role models) which constitute individualization processes that go along with uniformity due to society compliance and conformity norms (Spellerberg, 2014).

The research of lifestyle and its behaviors should meet a valid, reliable, practical, and non-reactive method with appropriate specificity. Lifestyle is subjected to acquisition, stabilization, adjustment, and revision (e.g., one's biography) since it helps to create and maintain one's identity considering perceived social barriers and distinction. The most common alternative is self-report method, although other methods used observation, and physiological methods (Thirlaway & Upton, 2009). The most discriminant variables of lifestyle have been age, education attainment, social background, and sex, considering cultural consumption. An empirical operationalization of lifestyle includes cultural taste, cultural participation or consumer goods, and leisure activities. In recent years, societal differentiation and standardization processes have made more heterogenous subgroups, distinguished by their preferences and tastes, and preferences of doing (occupation, income) (Becker & Lois, 2014).

Daily life activities are an important part of the study of lifestyle since they include several aspects which differ among individuals and that affect health and lifestyle choices and are part of the socio-economic factors that may differ starting with not having or having them, and if so, the type of selection made. These activities may be sleeping, travelling, working and caring, and leisure; this last one may be more helpful to determine lifestyle since it is not fixed, contractual and allows to choose within preferences, tastes, opportunities, and may vary over time (Becker & Lois, 2014).

The socioeconomic variables, which include social class, income, work, housing, physical and social environments, involve lifestyle choices that influence health directly and indirectly. Both, social class and environment have an effect by sex, age, location, material resources and environmental conditions that "are postulated to contribute to deleterious lifestyle choices." (Thirlaway & Upton, 2009, p.253). Socio-economic factors that affect health may be smoking, poor diet or socio-economic position, and in a lesser way exercise and drinking. Within socioeconomic variables, social class produced patterns

within lifestyle making a differentiation by accessibility to material resources (homes, cars, white goods, electronic goods, etc.). And related also to lifestyle and class, environment may be studied within several perspectives: high/low status, rural/resort, Industrial, city, local authority, inner or central, to enrich the research of class analysis and lifestyle which may provide several perspectives: behavioral, materialist, individual responsibility, or collective responsibility (Becker & Lois, 2014).

Another important variable to take into consideration is habits, defined as "established patterns of behavior that may once have been initiated by rational choice, but which are now under the control of specific situation cues that trigger the behavior without cognitive effort." (Thirlaway & Upton, 2009, p.249). Several lifestyle behaviors may become into a habit; research now needs to focus on the formation of these habits and ways to help the development of good habits, maybe through positive feedback beyond educational strategies since people prefer enjoyment and pleasure. Lifestyle behaviors play a central role in the development of habits and the related problems of changing negative habits and initiating positive habits can be enhanced by forming "ifthen" plans that reduce the effect of negative habits and increase the development of the desired positive habitual behaviors, and they too may decrease anxiety and tension as a dual effect in some lifestyle behaviors. So, affect should be taken into consideration within a social cognitive framework due to its influences into the cognitive processes, e.g., positive mood as a self-efficacy enhancer. Also affect and cognition should be in a "dual-processing framework where both a relational choice decision-making process and a heuristic alternative, such as affect or indeed some other sort of cognition minimizing shortcut are potential decision-making strategies." (Thirlaway & Upton, 2009, p.248). Models of lifestyle should aim to enable individuals to take control of their health and to influence policy to enable them to do so considering ecological models of health behavior that focus attention on environmental causes of behavior and highlight the multiple levels of influence on health behavior and also intrapersonal, sociocultural factors, policies and physical environments since they can all influence lifestyle behaviors. This is related to the observed value of multilevel interventions such as multicausal based on biopsychosocial approaches (Prochaska, Evers, Castle, Johnson, Prochaska, et al., 2012).

Lifestyle and well-being

The study and research of lifestyle developed work to understand how well-being is affected by the daily activities, habits, environment, and community activities, although most of the work is related to health (Graham & White, 2016). The study of well-being goes from the perspective and understanding of the individual, considering his or her perceptions or feelings as the main sources of assessment of well-being, up to the well-being as it "emerges from the interaction of multiple elements that affect how human needs are met at individual, relational, and communal levels. It is expected that "the maximal wellness occurs when both individuals and their communities as a whole benefit from the satisfaction of their needs at all levels including the role of environmental circumstances and the conditions of justice or injustice." (Evans, 2014, p. 2073). But the criteria for a "good life" later to be known as well-being or subjective well-being, since the objective measures were insufficient to show the degree to which a person evaluated their life and domains (Land, Michalos, & Sirgy, 2012; Verhofstadt, Bleys & Van Ootegem, 2015), varies among individuals and groups; and a good standard of living does not always entail high levels of satisfaction. The concern is to provide people with simultaneous and balanced satisfaction which should include the needs of people and the system with which they interact (Spellerberg, 2014).

The satisfaction and the good life focus on the needs, which include objective needs such as the satisfaction of material and physical needs required for survival and thriving, like food, shelter, and clothing (Evans, 2014); and also, the need for leisure time (Spellerberg, 2014). Subjective needs are the emotional and psychological nurturance required for flourishing; to feel happy or experience positive emotions, to find satisfaction and purpose with what one does for a living, to have positive relationships, the opportunity to have a life plan, to find a purpose, (Seligman, 2011), to feel included and have the opportunity of a distinctive way of life and culture, to be accepted in the community, the sense of security in the surroundings, and to have the chance to express one's own ideas (Nussbaum, 2003; United Nations, 2015). This comprehensive well-being view aligns with a conceptualization of health promotion that emphasizes values of self-determination, participation, community capacity-building, structural determinants, and social justice. And the research of both objective and subjective needs included the socioeconomic variables like culture, age, marriage, social support, unemployment, since these were proved to be objective well-being predictors (Evans, 2014). It is evident that an individual focus was not enough to achieve the improvement of well-being. Since housing conditions, sanitation, population density biological environment (Spellerberg, 2014), and societal issues such as economic models and social constraints shape people's identities, and in consequence, lifestyle and well-being (Evans, 2014). Psychological well-being and health also interact with multiple variables at different levels, so the approach must target the individual as well as the community to offer opportunities to improve well-being (Trudel-Fitzgerald, Millstein, Von Hippel, Howe, Tomasso, Wagner, & VanderWeele, 2019).

Lifestyle psychology should include form behavior-specific to ecological lifestyle settings; the changes and the psychological skills relevant to lifestyles, for individuals, stages in their lives; and socio-economic and environmental contexts, whose effect "will be mediated by perceptual processes and will not be a direct effect of the objective reality." (Thirlaway & Upton, 2009, p. 255). There are recognizable patterns of lifestyle behaviors about eating, drinking, smoking, exercising related to well-being, satisfaction with life and happiness. Wages and education were related to enough physical activity, and fruit and vegetable intake that affected positively levels of happiness and satisfaction with life (Ovrum, 2011). Also, the intake of sugary beverages, alcohol, tobacco, sedentarism and poor sleep associated negatively to well-being and satisfaction with life (Prendergast, Schofield, & Mackay, 2016). The way time is spent is also an important part of lifestyle, and may help achieve a higher satisfaction with life, a better work-family balance; work affects socialization, satisfaction with life, structure, bonding into society and a life plan (Zuzaneck & Hilbrecht, 2016).

As described, both lifestyle and well-being have common ground: cognitive and emotional contents, relation to daily activities and health, and are relevant to one another from the individual self to the community levels. "The lifestyle concept increases the possibility to discover profiles and patterns that exist outside classic conceptualizations of class and status", and there is a need to research to which extent lifestyles contribute to well-being and quality of life, especially since well-being became a criterion of what constitutes a successful society, although it differs among the people, regions, generations, and societies (Spellerberg, 2014).

Semantic networks

The need of a systematical research of well-being and lifestyles, and how the latter contributes to well-being, might have an explanatory power by social class, age, or gender. It was observed an independent effect on individual well-being, since well-being and lifestyle share domains and components. The lifestyle concept presents a framework that may help "to discover profiles and

patterns that exist outside classic conceptualizations of class and status." (Spellerberg, 2014).

The semantic networks technique be useful: they collect the responses with the modified natural semantic networks, developed within etnopsychometry, to obtain the components (e.g., words) of a given concept. These responses include a cultural background, hence natural, since the very person reports her or his response which is the basis for this technique; it has proved useful in the development of instruments like questionnaires, scales, and indexes (Reyes & García y Barragán, 2008). The representation of the gathered information through the modified semantic networks technique may be using graphs.

As relational systems, graphs that emerge from the semantic networks data have central measures which help establish the relation (edges, link, line) between two elements (nodes, vertex, points). The degree is the frequency of connections between the node of interest with other nodes (Polanco, 2006). The graph theory, within the complex systems studies, show non-linear dynamics, and scale-free and power law distribution (Canright, 2009). In consequence, the networks may reflect the importance of a relationship due to connectedness, a salient advantage, since they do not follow the normal distribution principle (Polanco, 2006). Derived from the nodes and the edges calculations, there are useful statistical measures: betweenness-centrality, link density, node degree relationships, graph diameter, path length, hub, modularity, and clustering coefficient (Barabási, 2021; Li, Alderson, Doyle, & Willinger, 2005). The three main statistical measures taken into consideration in this paper were betweenness-centrality as level of control and importance of a node (Li et al., 2005); hub as the number of links into a node, hence, the level of interchange and structure it provides for the graph (Li et al., 2005; Polanco, 2006; Ruelas & Mansilla, 2005); modularity which considers connectivity and density within subgroups of the graph, (modules); and clustering that provides a view of the subgraph arrangement (Albert & Barabási, 2002) and the organization of the whole graph (Ruelas & Mansilla, 2005).

In some cases, well-being showed a non-linear behavior (e.g., Campos, Lima, Devlin, & Hernández, 2016; Clark & Oswald, 2006; González, Coenders, Saez, & Casas, 2010; Rojas, 2006) and lifestyle indicators like education or income gave a vertical structure and how resources were used, considering endowment (Spellerberg, 2014).). This meant a non-correspondence between causes and effects (non-linearity), and it had an organization considering interactions within the parts that have effect among them, and whose sum has



other properties leading to non-predictability (González, Coenders, & Casas, 2008; González, Coenders, Saez, & Casas, 2010). And in social structure analysis cultural patterns of behavior and its consequences, such as the reinforcement of privileges, standards of living, and life opportunities need to be researched.

It is expected that complex social systems, which are related to collective behavior, show interaction, emergence, and self-organization within non-linearity (Hilbert, 2013). The social sciences aim to understand interactions as a whole relational system and the analysis in social sciences aimed to understand the relation between variables (Kaplan, 2004). These very systems show the mental models generated by cultures (Binder & Shöll, 2010). Semantic networks can represent complex systems and may be used to obtain the definitions with cultural background of well-being and lifestyle obtained from the target population, which enables to obtain the information directly, which is of great advantage when studying a phenomenon. The objective of this paper was to define the concepts of well-being and lifestyle with the use of semantic networks technique, addressing both the cultural background and the non-linearity of the concepts in dwellers of Mexico City and its Metropolitan Area and find the relation between them.

METHOD

Sample

This was a cuasiexperimental, transversal, field study with non probabilistic convenience sampling. . Semantic networks and graph theory aimed to establish a definition of well-being and lifestyle. The inclusion criteria were that participantes inhabited Mexico City or its Metropolitan Zone, to be able to read and write and were al least 20 years old.

Semantic networks technique does not specify and ideal sample size. Although a broad recommendation is to acquire the biggest sample possible, semantic networks showed what was considered a saturation level, which may establish a limit to the data collection (Streiner, Norman & Cairney, 2015) reached at the 200 questionnaires. There were 281 questionnaires, although since quotas were observed according to sex and age of the Mexico City population, the final sample had N=201, 52% female and 48% male, volunteers --informed consent provided, no incentives--, 20 years and older, mean=39.97 years, S.D.=13.56 years.

The starting point for researching well-being defined it as an affect and cognitive evaluation of the person's life,

which included happiness and satisfaction (Diener, Suh & Oishi, 1997). Lifestyle was considered a persons' patterns of individual to social interaction that include attitudes, behavior, and beliefs in several life domains (Becker & Lois, 2014; Spellerberg, 2014; Evans, 2014).

Instruments

To collect the data, the instrument was a semantics network questionnaire which consisted of separate sheets of paper for each concept, with the format suggested by Valdez (1998): half letter sheets of lined paper to write five or more words people considered related to each concept: well-being, satisfaction, happiness, and lifestyle. The set of sheets was stapled with a cover page with the study information, each sheet portrayed the instructions to provide the word related to a concept stated in the sheet, and a final sheet of paper with sociodemographic questions: age, sex, occupation, and questions of the AMAI index questionnaire to determine the sociodemographic level (López, 2008).

Procedure

The pollsters were students and colleges of the School of Psychology, campus CU and FES Zaragoza. When applying the questionnaire informed consent was provided establishing the anonymity, confidentiality, and voluntary participation. The data was collected from May to August of 2018. In this paper only the lifestyle and the well-being data were analyzed.

Analysis

The data, words provided by the respondents, were put into tables, the spelling was checked, then singular and plural nouns were joined (when the meaning remained the same), as well as feminine and masculine nouns or adjectives. The analysis included descriptive and inferential statistical analysis (IBM SPSS 25) on correlations and Euclidean distances (Correspondence Analysis), Rho of Spearman correlations, and geodesic distances analysis (Gephi 0.9.5).

RESULTS

A correlation analysis was conducted to determine if lifestyle and well-being were related. The well-being and lifestyle networks were developed into graphs to obtain the definition of each concept. Then, correspondence analysis was conducted to show the organization of the words (nodes) of lifestyle and well-being as a set and of words (nodes) only in the lifestyle graph.



Well-being and lifestyle defined by semantic networks

The well-being graph included the words related to the concepts of well-being, happiness, and satisfaction since they proved to be relevant to one another and according to theory they constitute the entire concept of well-being (Diener, Suh, & Oishi, 1997). Within the well-being, satisfaction, and happiness all three of them are mentioned among the higher betweenness-centrality, lifestyle was not. Spearman Rho correlation analysis showed a moderate intensity between well-being and happiness (r=0.541, p=0.002), happiness and satisfaction (r=0.577, p<0.001), and well-being and lifestyle (r=0.539, p=0.002).

Correlation between well-being and lifestyle

From a list of the main nodes, correlations were run among the separate elements of subjective well-being, all of them being moderate and positive. Correlation between the merged subjective well-being elements and lifestyle was low, positive, and statistically significant (Spearman Rho=0.333, p=0.041) (Table 1).

 Table 1.

 Correlations among subjective well-being components and lifestyle

	0)		/		
Spearman Rho	WELL-BEING	SATISFACTION	HAPPINESS		
Satisfaction	0.251				
Happiness	0.494**	0.564**			
Lifestyle	0.477**	0.495**	0.430*		
*p<0.01, **p<0.001					

The relation between lifestyle and well-being shared elements about physical health (e.g., exercise, nourishment), significant relationships (e.g., family, friends, work), and resources (e.g., custom, education, money).

If the well-being graph was merged with lifestyle network in a directed network, which had a mean length of path of 2.828 and 208 nodes and 1268 vertices. A complex non-linear, free-scale network with an average with a diameter of 6, a small world phenomenon having a clustering coefficient of 0.499, a mean degree of 6.096, and emergence with modularity values of 0.320.

A revision of literature about well-being provided guides to examine the graphs. Well-being had contents that fitted definitions which stated the well-being as subjective, which includes affect and cognitive evaluation of satisfaction with life aspects as domains, or as a whole, and happiness (Diener, 1984; Diener, Emmons, Larsen & Griffin, 1985; Diener, Suh, & Oishi, 1997). The domains to be found were at least two: material living conditions and social contacts (Easterling & Sawangfa,

2007) and it was taken into consideration that in Latin America and, specifically in Mexico, family, economic resources, health, work, and friends were the most likely domains to appear within the graphs (Graham & Lora, 2009; Rojas 2004, 2006).

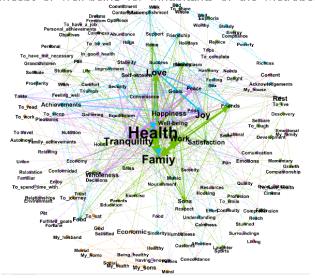
Well-being graph to obtain the definition of well-being

Well-being included satisfaction and happiness within a directed network. It had a mean length of path of 2.754 and 173 nodes and 1078 vertices. A complex non-linear, free-scale network with an average with a diameter of 6, a small world phenomenon having a clustering coefficient of 0.512, a mean degree of 6.231, and emergence with modularity values of 0.319.

The well-being graph (merged with satisfaction and happiness) had eight modules. Four were discarded (modules 3, 4, 5, 7) because they did not have enough nodes to conform a factor, or they did not have a node with b-c values worth considering (less than 0.19 relative value compared to the main b-c value), nor hub values (less than 0.19 hub value). The four remaining communities were module zero (modularity=21.97%), module one (modularity=31.21%) module two (modularity=35.84%), whose values were considered adequate (Barabási, 2021); and module six (2.89%) whose elements had lower values of b-c, hub and clustering, although different from zero, but provided information about time organization which is considered important to well-being (OECD, 2020) (Graph 1).

Graph 1.

Concept of well-being for inhabitants of the Metropolitan



Zone of Mexico City

Three domains of well-being encompassed the contents of the graph: health, relationships, and resour-



Table 2. Values of the well-being graph: Module zero

	values of the well-being graph. Woulde zero						
Module 0	B-C	нив	CLUSTERING	EIGENCENTRALITY	Domain		
Comfort	0.00	0.05	1.00	0.15	Health		
Nutrition	0.00	0.03	1.00	0.10	Health		
Quality*	1.33	0.04	0.80	0.14	Health		
Stability	164.72	0.16	0.56	0.50	Health		
Equilibrium*	109.92	0.10	0.53	0.31	Health		
Exercise*	37.00	0.05	0.52	0.17	Health		
Meal*	780.04	0.09	0.37	0.29	Health		
Rest	1669.45	0.03	0.27	0.11	Health		
Health*	9232.71	0.31	0.11	1.00	Health		
Housing*	0.00	0.05	1.00	0.15	Resources		
Laboral	0.00	0.03	1.00	0.11	Resources		
Resources	0.00	0.03	1.00	0.11	Resources		
Economy*	6.58	0.08	0.87	0.25	Resources		
House*	6.30	0.06	0.76	0.20	Resources		
Nourishment*	38.33	0.07	0.47	0.23	Resources		
Trust	0.00	0.04	1.00	0.14	Resources		
To enjoy	0.00	0.03	1.00	0.10	Resources		
Gathering	13.42	0.07	0.67	0.23	Resources		
Studies*	293.48	0.06	0.53	0.19	Resources		
* Also in lifesty	le						

ces. The tags were gathered into subgroups and included into one of the domains. Then they were subdivided into subdomains for the purposes of analysis and comparability, so the domain health was divided into psychological health and the physical health; the domain resources had three subdomains: personal, material and time resources; and the domain of relationships contained the subdomains: family, friends, and community relationships. This organization and final setting will be discussed in the next section.

Within the module zero there were subgroups about health and resources. Within the module one, there were subgroups about health, relationships, and resources. The module two had subgroups about positive emotions and resources (mainly related to success).

The module six was about activities. Then subdomains were developed for health (physical and psychological health), relationships (family, friends, community) and resources (personal, material, time) accordingly to the theory review. These groups (corresponding to a well-being domain) within the modules had a node with a value different from zero, with at least one hub and three or more nodes to constitute a factor. To allow a better understanding of the elements and relation among the graphs, the subgroups were rearranged into domains and subdomains considering a tag.

Within the module zero the main domains are health (e.g., nutrition, exercise), resources (e.g., housing, laboral) and activities (e.g., gathering, to enjoy). The main hubs were health (hub value=0.31) and stability (hub value=0.16) (Table 2). The highest b-c nodes were health (b-c= (9232.71), rest (b-c=780.04) and food (b-c=780.04) and for the resource's subgraph, studies (b-c=293.48). The subdomains were physical health and the material resources and actions towards it. The module one mainly encompassed positive emotions (e.g., love, affection, sincerity), personal resources (e.g., success, self-esteem, life) and resources either material or about time (e.g., money, profession). The highest b-c nodes to the subgroups were family (b-c=5459.98), love (b-c=3343.32), work (b-c=2593.51), and money (b-c=406.70).

The main hubs of module one were family (hub=0.36), love (hub=0.27), work (hub=0.21), money (hub=0.13), and accomplishment (hub=0.13) (Table 3). The subdomains were about relationships and how we relate to others (e.g., to share, to spend time with) and psychological health that might be implied within the emotions (Huppert & So, 2013), which were mostly related to an activation state (e.g., enthusiasm, affection). An important node, work, was among the relationships, not within the resources nodes.

The module two had positive emotions (e.g., bliss, delight) and resources (e.g., decisions, goals). The emotions here were both about activation (e.g., content, pride) and homeostatic (non-activation) (e.g., wholeness, harmony). The main b-c were tranquility (b-c=3990.58), joy (b-c=3259.70), and achievements (b-c=1030.31). The main hubs were tranquility (hub=0.23), joy (hub=0.25), and achievements (hub=0.16) (Table 4). The module mentioned both types of emotions, high and low activation (homeostatic) which are felt by the person either alone or accompanied and that were considered psychological health indicators.

The module six had actions (e.g., to read, to sleep) and the main b-c was to eat (b-c=329), and the hubs were



Table 3. *Values of the well-being graph: Module one*

values of the well-being graph: Module one						
Module 1	B-C	нив	CLUSTERING	EIGENCENTRALITY	Domain	
Sex	0.00	0.05	1.00	0.16	Health	
Triumph	0.00	0.04	1.00	0.13	Health	
Improvement	0.00	0.04	1.00	0.12	Health	
Sincerity	0.00	0.03	1.00	0.10	Health	
Affection	0.00	0.03	1.00	0.10	Health	
Enthousiasm	0.00	0.03	1.00	0.09	Health	
Freedom*	7.12	0.07	0.90	0.22	Health	
Life	19.71	0.05	0.67	0.16	Health	
Self-esteem	655.47	0.07	0.39	0.22	Health	
Love*	3343.42	0.27	0.19	0.85	Health	
To share*	1.84	0.02	0.00	0.06	Health	
Couple	0.00	0.08	1.00	0.26	Relationships	
Parents	0.00	0.03	1.00	0.10	Relationships	
Understanding	0.00	0.03	1.00	0.08	Relationships	
Education*	4.58	0.05	0.83	0.15	Relationships	
Frienship*	50.03	0.09	0.75	0.29	Relationships	
Home*	35.44	0.12	0.70	0.39	Relationships	
God	292.71	0.03	0.50	0.09	Relationships	
Sons	940.28	0.10	0.39	0.32	Relationships	
Friends*	506.93	0.16	0.37	0.50	Relationships	
Work*	2593.51	0.21	0.20	0.67	Relationships	
My sons	728.45	0.01	0.20	0.05	Relationships	
Family*	5459.98	0.26	0.13	0.85	Relationships	
To spend time with*	0.00	0.01	0.00	0.05	Relationships	
Pet	0.00	0.01	0.00	0.05	Relationships	
Grandchildren	0.00	0.01	0.00	0.05	Relationships	
1	0.00	0.03	1.00	0.09	Resources	
Objectives	0.00	0.02	1.00	0.07	Resources	
Profession	115.17	0.02	0.70	0.07	Resources	
Accomplishment	89.83	0.13	0.67	0.41	Resources	
Money*	406.70	0.13	0.51	0.42	Resources	

Module 1	в-с	нив	CLUSTERING	EIGENCENTRALITY	Domain
Respect	142.81	0.08	0.42	0.25	Resources
Automóvil	0.00	0.01	0.00	0.05	Resources
Custom*	0.00	0.03	1.00	0.10	Resources
Trips*	0.00	0.04	1.00	0.14	Resources
Parties	0.00	0.03	1.00	0.10	Resources
Sports*	0.00	0.03	1.00	0.09	Resources
Music**	324.00	0.06	0.67	0.20	Resources
Fun*	126.50	0.07	0.62	0.21	Resources
To travel * Also in lifestyle	0.00 e ** In elim	0.01 inated r	0.00 nodule	0.05 seven o	Resources of lifestyle.

Table 4. Values of the well-being graph: Module two

Module 1	B-C	нив	CLUSTERING	EIGENCENTRALITY	Domain
Module 2	b-c	Hub	clustering	eigencentrality	Domain
Satisfaction*	1514.09	0.18	0.33	0.56	Health
Security*	29.17	0.10	0.62	0.32	Health
Convenience*	83.77	0.16	0.63	0.51	Health
Preasures	242.87	0.13	0.57	0.40	Health
Taste**	240.49	0.11	0.46	0.35	Health
Harmony	32.85	0.15	0.80	0.46	Health
Pride	14.46	0.07	0.80	0.21	Health
Delight	24.30	0.04	0.67	0.12	Health
Emotions	335.78	0.10	0.64	0.30	Health
Bliss	324.00	0.04	0.50	0.12	Health
Peace	470.52	0.21	0.40	0.65	Health
Well-being*	979.902	0.21	0.39	0.64	Health
Content	339.73	0.02	0.30	0.08	Health
Wholeness*	1311.11	0.17	0.28	0.53	Health
Happiness*	1783.69	0.24	0.27	0.74	Health

Module 1	B-C	HUB	CLUSTERING	EIGENCENTRALITY	Domain		
Joy*	3259.70	0.25	0.22	0.79	Health		
Tranquility*	3990.58	0.23	0.17	0.73	Health		
To laugh	19.05	0.01	0.00	0.05	Health		
To live*	0.00	0.02	1.00	0.07	Resources		
Decisions	0.00	0.02	1.00	0.07	Resources		
Success	11.03	0.09	0.79	0.27	Resources		
Needs	7.87	0.09	0.75	0.27	Resources		
Goals	439.97	0.09	0.47	0.30	Resources		
Achievements 1030.31 0.16 0.33 0.52 Resources * Also in lifestyle ** In eliminated module four of lifestyle							

to read (hub=0.01) and to journey (hub=0.01). The module consisted of activities of the day-to-day life (Table 5).

The definition of well-being of the inhabitants of Mexico City and its Metropolitan Zone was the evaluation of

Table 5. Values of the subjective well-being graph: Module six

Module 6	в-с	Нив	CLUSTERING	EIGENCENTRALITY	Domain	
To read**	219.80	0.01	0.00	0.05	Resources	
To journey	219.80	0.01	0.00	0.05	Resources	
To sleep	196.40	0.01	0.33	0.04	Resources	
To eat	329.00	0.00	0.00	0.01	Resources	
To work 0.00 0.00 0.00 0.00 Resources * Also in lifestyle ** In eliminated module four of lifestyle						

affect and cognitive components which included happiness and satisfaction as relevant elements of well-being and that had domains about health, relationships and resources.

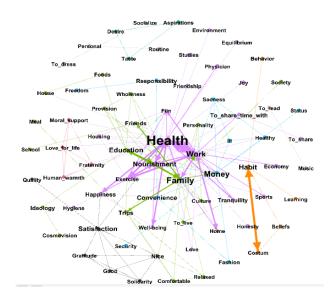
Lifestyle graph to obtain the definition of lifestyle

The directed graph of lifestyle had a diameter of 6 (75 nodes and 282 vertices) a mean degree of 3.76, mean length of path of 2.8, having a clustering coefficient of 0.43, with modularity of 0.481 with values between 0.26 and 0.48.

Among the many possibilities to analyze lifestyle and name the modules as factors (Qualtrics.com, 2022) four definitions were considered to categorize the nodes within the modules. Like well-being, lifestyle had an important contents around health, which included elements that could be associated to the WHO 1977 definition of health "a call for achieving a level of health that would permit everyone to lead a socially and economically productive life, a goal 'nearer to reality' " that permitted to include a wider range of life aspects within health and clarifying the former definition 'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity'." (WHO, 2008, p. 12).

An aspect of lifestyle with representation among the subgraphs was identity as the understanding, representation and being conscious of who one is and of how we consider ourselves personally and socially, including subjective facets like individuality, self-esteem, insight and self-observation, as well as the self-conscience. This set of characteristics and traits allow us to define ourselves to others, growth, to develop plans, and relate to others professionally and socially (Linguiardi, & McWilliams, 2017). Also, the social interactions, relationships or social capital was an important content. Social capital was understood as the networks, norms and understanding that facilitate the cooperation, activities within and among groups of individuals and trust in others and interpersonal trust (Helliwell, 2001). And a fourth concept within lifestyle was attitude which was considered an evaluation of an object, person, group, issue, or concept which include specific beliefs, emotions, and behaviors towards an object, person, group, issue, or concept (APA, 2022).

The lifestyle graph had ten modules. Five were discarded (modules 3, 4, 7, 8, 9) because they did not have enough nodes to conform a factor, or they did not have a node with b-c values worth considering (less than 0.19 relative value compared to the main b-c value), nor hub values (less than 0.19 hub value). The remaining communities were module zero (modularity=30.67%), module five (modularity=24%) and six (modularity=13.33%) whose values were considered adequate and module one (modularity=6.67%) module two (modularity=8.00%). } The whole graph had an optimal value of 0.481 (Barabási, 2021) (Graph 2).



Graph 2.Concept of lifestyle for inhabitants of the Metropolitan Zone of Mexico City

The main domains within the lifestyle theory related to lifestyle according to the contents of the graph were health, social capital, identity, and attitude contents. The tags were gathered into subgroups if within the subgraph there were two different contents issues. The organization and final setting will be discussed in the next section.

The module zero had nodes about health (e.g., nourishment, exercise) and social capital (e.g., work, friendship). The main b-c and hubs were health (b-c=2287.619, hub=0.422), nourishment (b-c=418.913, hub=0.318), and work (b-c=634.774, hub=0.354). (Table 6). The module mentioned contents related to health which encompasses physical health, psychological health as well as social and economic issues mentioned in the WHO 1977 definition of health (2008). The health contents were related to the well-being domain of physical health (health) and relationships (social capital).

Table 6. *Values of the lifestyle graph: Module zero*

Module 1	в-с	нив	CLUSTERING	EIGENCENTRALITY	Domain
Module 0	b-c	Hub	Clustering	Eigencentr.	Category
Work*	634.775	0.354	0.203	0.820	Social capital
To spend time with*	128.000	0.081	0.333	0.185	Social capital

MODULE 1	в-с	HUB	CLUSTERING	EIGENCENTRALITY	Domain
Home*	0	0.132	1	0.308	Social capital
Frienship*	0	0.050	0	0.120	Social capital
To share*	0	0.010	0	0.022	Social capital
Health*	2287.619	0.422	0.090	1	Health
Nourishment*	418.913	0.318	0.286	0.734	Health
Happiness*	149.767	0.116	0.400	0.280	Health
Tranquility*	91.167	0.094	0.333	0.222	Health
Exercise*	42.475	0.228	0.667	0.526	Health
Fun*	9.389	0.201	0.733	0.462	Health
Housing*	0	0.144	1	0.330	Health
Well-being*	0	0.102	1	0.239	Health
Love*	0	0.092	1	0.216	Health
Economy*	0	0.092	1	0.216	Health
Sports*	0	0.080	1	0.181	Health
Joy*	0	0.050	0	0.120	Health
Equilibrium*	0	0.050	0	0.120	Health
Studies*	0	0.050	0	0.120	Health
Honesty	0	0.050	0	0.120	Health
Physician	0	0.050	0	0.120	Health
Environment	0	0.050	0	0.120	Health
Hygene * Also in well be	0	0.038	0	0.085	Health

* Also in well-being concept

The module one had nodes about attitudes (e.g., customs, beliefs) though the contents was of cognitive components of the construct. The main b-c and hub was (b-c=498.0, hub=0.053) (Table 7). The module mentioned attitudes' contents such as beliefs, and behavior, and related with well-being domain of personal resources.

The module two was also about attitudes (e.g., nice, good) related to a cognitive evaluation. The main b-c were satisfaction (b-c=384.188) and nice (b-c=161.304). The main hub was satisfaction (hub=0.087) (Table 8). The well-being domain related to these nodes was physical health.

The module five had nodes about identity (e.g., ideology, personality) and social capital (e.g., friends, society). The main b-c and hubs were family (b-c=898.45, hub=0.334) and education (b-c=434.977, hub=0.225)



(Table 9). The well-being domains related to these nodes were personal resources and relationships.

Table 7. Values of the lifestyle graph: Module one

Module 1	B-C	Нив	CLUSTERING	EIGENCENTR.	Category
Habits	498.000	0.053	0.100	0.137	Attitude
Custom*	0	0.007	1	0.024	Attitude
Beliefs	0	0.007	1	0.024	Attitude
Learning	0	0.006	0	0.019	Attitude
Behavior * Also in w	0 ell-being co	0.006 oncept	0	0.019	Attitude

Table 8. Values of the lifestyle graph: Module two

Module 2	B-C	Нив	CLUSTERING	EIGENCENTR.	Category
Satisfaction*	384.188	0.087	0.333	0.232	Attitude
Nice	161.305	0.095	0.429	0.251	Attitude
Gratitude	0	0.029	1	0.090	Attitude
Good	0	0.029	1	0.090	Attitude
Solidarity	0	0.029	1	0.090	Attitude
Quality* * Also in we	0 ell-being co	0.010	0	0.030	Attitude

Table 9. *Values of the lifestyle graph: Module five*

MODULE 5	в-С	Нив	CLUSTERING	EIGENCENTR.	Category
Education*	434.977	0.225	0.311	0.524	Identity
Trips*	166.010	0.141	0.429	0.335	Identity
Ideology	128.000	0.027	0	0.064	Identity
Personality	35.333	0.050	0.333	0.120	Identity
House*	27.900	0.054	0	0.130	Identity
Culture	6.833	0.073	0.667	0.170	Identity

MODULE 5	в-С	Нив	CLUSTERING	EIGENCENTR.	Category
Foods*	4.667	0.033	0	0.078	Identity
To live*	2.500	0.017	0	0.042	Identity
Provision	0	0.119	1	0.272	Identity
Wholeness*	0	0.119	1	0.272	Identity
Comfortable	0	0.077	1	0.189	Identity
Relaxed	0	0.077	1	0.189	Identity
Meal*	0	0.017	0	0.040	Identity
Cosmovision	0	0.003	0	0.009	Identity
Family*	898.450	0.334	0.221	0.784	Social capital
Friends*	128.000	0.083	0.333	0.193	Social capital
Society	0	0.040	0	0.093	Social capital
School 0 0.010 0 0.023 Social capital * Also in well-being concept					

Table 10. *Values of the lifestyle graph: Module six*

Module 6	в-с	Нив	CLUSTERING	EIGENCENTR.	Category
Money*	721.867	0.247	0.242	0.580	Identity
Convenience*	261.867	0.048	0.167	0.119	Identity
Responsibility	128.000	0.006	0	0.018	Identity
Sick	0	0.094	1	0.218	Identity
Healthy	0	0.094	1	0.218	Identity
Sadness	0	0.094	1	0.218	Identity
Fashion	0	0.035	1	0.085	Identity
Status	0	0.029	0	0.069	Identity
Security*	0	0.029	0	0.069	Identity
Freedom*	0 ell-being co	0.001	0	0.004	Identity

* Also in well-being concept

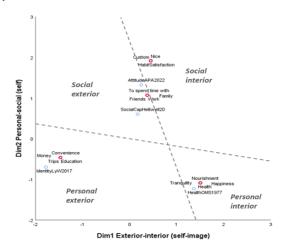
The module six had nodes about identity (e.g., healty, status). The main b-c and hub were money (b-c=721.867, hub=0.247) and convenience (b-c=261.867) (Table 10). The well-being domain related to this node was personal resources.



The lifestyle was defined as an attitudinal concept arranged into domains within the lifestyle theory related to health, social capital, identity, and attitude contents. The definition may consider the organization of such domains along with theories and approaches in a continuum bounded by two opposite ends (e.g., inner/outer activities). So, a correspondence analysis based on Euclidean distances was performed to obtain an array of the nodes of lifestyle within dimensions that considered this opposite values.

Analysis of correspondence to show the organization of the words (nodes) of lifestyle

When all the nodes of lifestyle were included in the correspondence analysis, the arrangement had an exterior (-1.47, inertia=0.04) to interior (1.52, inertia=0.05) dimension (dim1) and a personal (-1.09, inertia=0.05) to social (1.92, inertia=0.07) (dim2). The personal exterior nodes were related to the way we conduct our life around an outward appearance (e.g., money, convenience, trips, culture, comfortable, relaxed, fashion, status) within a more social context (e.g., education responsibility, ideology, personality, house, food, provision, cosmovision). The personal interior nodes included physical health (e.g., health, nourishment, exercise, physician, well-being, sports, hygiene, housing, studies, environment) and psychological health (e.g., happiness, tranquility, fun, joy, love, honesty). The social exterior was related to interaction with others (e.g., work, friends, to spend time with, home, school, friendship, to share, society and family). Within the social interior were nodes about cognitive (e.g., habit, satisfaction, custom, learning, behavior, beliefs) and affective (e.g., nice, gratitude, good, solidarity, quality) attitude elements (Graph 3). Graph 3.

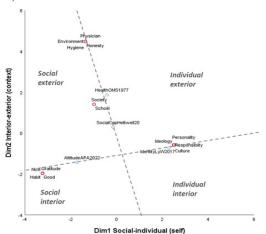


Euclidian distances of all lifestyle nodes

The nodes exclusive to lifestyle were mainly related to health, attitude, and identity. The nodes with the higher b-c values were habits, nice, ideology, responsibility, personality and culture. The node and module about health widened the concept within well-being to include hygiene and the environment.

The attitude and identity elements added an evaluation of the lifestyle on the cognitive contents such as beliefs, gratitude and responsibility, and qualifying nodes like nice and good. The identity elements were on an individual level, such as, personality, ideology, sadness, to a social scale, such as, cosmovision, culture, society, school, fashion.

A correspondence analysis of the nodes exclusive to the lifestyle concept showed a social (-3.23, inertia=0.38) to individual (2.50, inertia=0.18) dimension (dim1) and interior (-1.97, inertia=0.38) to exterior (4.48, inertia=0.49) (dim2). The social interior nodes were related to cognitive (e.g., habit, gratitude, learning, behavior) and affective (nice, good, beliefs) attitude. The individual interior nodes included identity elements (e.g., responsibility, ideology, personality, culture, comfortable, relaxed, provision, fashion, cosmovision, ill, status, sadness). The social exterior was related to institutions (e.g., society, school). The individual exterior was about health (e.g., physician, hygiene, honesty, environment) (Graph 4).



Graph 4. *Euclidian distances of nodes only in lifestyle concept*

DISCUSSION

Well-being graphs

The well-being graph had within the highest degrees the nodes of happiness and satisfaction, which according to



Table 11. *Nodes exclusive to the concept of lifestyle*

Module 0	B-C	Нив	Module	CLUSTERING	EIGENCENTR.	Category
Honesty	0	0.050	0	0	0.120	Health
Physician	0	0.050	0	0	0.120	Health
Environment	0	0.050	0	0	0.120	Health
Hygiene	0	0.038	0	0	0.085	Health
Habits	498.000	0.053	1	0.100	0.137	Attitude
Beliefs	0	0.007	1	1	0.024	Attitude
Learning	0	0.006	1	0	0.019	Attitude
Behavior	0	0.006	1	0	0.019	Attitude
Nice	161.305	0.095	2	0.429	0.251	Attitude
Gratitude	0	0.029	2	1	0.090	Attitude
Good	0	0.029	2	1	0.090	Attitude
Ideology	128.000	0.027	5	0	0.064	Identity
Personality	35.333	0.050	5	0.333	0.120	Identity
Culture	6.833	0.073	5	0.667	0.170	Identity
Provision	0	0.119	5	1	0.272	Identity
Comfortable	0	0.077	5	1	0.189	Identity
Relaxed	0	0.077	5	1	0.189	Identity
Cosmovision	0	0.003	5	0	0.009	Identity
Society	0	0.040	5	0	0.093	Social cap.
School	0	0.010	5	0	0.023	Social cap.
Responsibility	128.000	0.006	6	0	0.018	Identity
III	0	0.094	6	1	0.218	Identity
Sadness	0	0.094	6	1	0.218	Identity
Fashion	0	0.035	6	1	0.085	Identity
Status	0	0.029	6	0	0.069	Identity

the theory, are two of the elements considered to be important in well-being definition and measurement. Also, the cognitive as well as the affective components proposed in the theory were present within the graph. It was possible, due to the contents and associations within the modules, to distinguish the main domains of well-being and subdomains: health (physical and psychological), relationships (family, friends, community) and resources (personal, material, time).

In well-being, health is related to good nutrition, activity such as exercise and rest, and resources towards that goal. Health node appeared more related to the individual health. Meanwhile, in lifestyle graph relationships were included among the nodes as well as the environment, giving an ampler context to health, in comparison with well-being's.

An important relationship contents within well-being was strongly associated to health (the main b-c):



family, friends and work. In contrast, lifestyle had relationships but mostly associated with to the role in the social interaction, and work, a node that was among the main relationships in well-being, was on lifestyle module of health, more related to the resources. This constituted a major difference between lifestyle and well-being. Work node in lifestyle was connected first to the material and personal resources it provides, and second, to relate with others. Within this context, work and the relationships were considered closer to the social capital definition.

Two well-being modules related to emotions and revealed then as a core element to well-being. All emotions were positive, and among them there were two distinguishable groups: homeostatic and activation emotions. This would support the idea that emotions may establish an equilibrium defined by cycles in which both types take part (Sterling, 2007). Lifestyle shared the main well-being emotional nodes (love, happiness, tranquility, joy) but lacked its strength and variety in the graph.

The definition of well-being of the inhabitants of Mexico City and its Metropolitan Zone was the evaluation of affect and cognitive components which included happiness and satisfaction as relevant elements of well-being and that had domains about health, relationships and resources.

Lifestyle graph

Well-being and lifestyle graphs were social complex systems. Both concepts showed the small world phenomenon due to their clustering coefficient values, and emergence since they both had acceptable modularity values and were organized into modules which showed coherent contents (Barabási, 2021; Hilbert, 2013).

A lower mean degree when lifestyle was included in the well-being network, as well as almost the same modularity values, may suggest that lifestyle complemented well-being to an adequate level. Lifestyle was not mentioned as part of the well-being networks (well-being, happiness, satisfaction), but lifestyle concept had statistically significant correlations with well-being.

Lifestyle was defined as an attitudinal concept, constructed around health, attitudes, identity and social capital. Its graph was a social complex network with a small world phenomenon due to adequate clustering coefficient value and emergence, having a modularity that allowed organization into subgraphs (Barabási, 2021; Hilbert, 2013). But the modularity values for each module were suboptimal.

The main domains within the lifestyle theory according to the contents of the graph were health, social

capital, identity, and attitude contents. Lifestyle modules reflected a more personal location among a societal scenario; the nodes included elements that went from the individual to a social context that even included the environment within nodes. In well-being the environment was more related to the ambiance the person dwelled and had b-c and hub value zero, as well as in the clustering and eigencentrality scores, hence it was discarded.

As expected from the theory revision, lifestyle had contents related to identity elements such as status and appearance (Becker & Lois, 2014; Evans in Teo, 2014), as well as about the way to carry out within the social context (Spellerberg, 2014) like responsibility and comfort, or a more affective evaluation allowing to qualify it as a relaxed or good lifestyle.

The theory revision mentioned that habits were considered an important element of lifestyle (Thirlaway & Upton, 2009) and the graph of lifestyle included habits as an important node and exclusive to lifestyle. This node had a module with attitude contents and distinguished the concept of lifestyle from the well-being concept. Also, theory brought up affect and cognitive attitudinal contents within lifestyle, which were part of modules and of nodes with emotions like love, joy, happiness, tranquility, and, as stated above, an evaluation with affective qualifications of the concept itself. As the theory suggested, affect along with cognitive processes were both part of the lifestyle concept as a dual process (Thirlaway & Upton, 2009) that affects the way lifestyle was defined. Within these qualifications there were negative nodes such as ill and sadness mostly related to the identity subgraph of lifestyle.

It was important to acknowledge that the leisure time was not mentioned. It's absence is concerning, even if some leisure activities were nodes, none of them had high values of b-c or were a hub. Mexico is one of the countries with more working hours (OCDE, 2019), and in consequence, with less leisure time. It is believed that leisure time has an important part in the development of a healthy lifestyle and the improvement of well-being, as a free choice activity that helps enrich life (Becker & Lois, 2014).

Organization of the lifestyle elements

The elements that distinguish the contents of lifestyle are related to identity and attitude. Lifestyle was thought to help define identity as proposed by some theories (Teo, 2014). And identity and attitude elements within lifestyle were found within the subgraphs of the personal resources in well-being. These identity nodes were about a person's resources to improve.



The representation of the nodes of lifestyle with bidirectional dimensions showed a small distinction between the exterior to interior nodes in the social area. This could reflect the connection between the different roles one actor has within social scenarios due to specific actions, such as the family unit or work (Zuzaneck & Hilbrecht, 2016).

Also, the presence of nodes in the limits among the areas of the dimensions might suggest that as considered by theories, the lifestyle helps people shape their identity (Thirlaway & Upton, 2009) acting like a filter between the social and the individual or personal life, and between the exterior and the interior experiences, e.g., the node environment was associated with health and was an element in the limit between the exterior and the interior or personal life.

CONCLUSIONS

The definitions of lifestyle and well-being were obtained within a cultural context frame. Well-being was an affect and cognitive evaluation of life, including happiness and satisfaction, with health, positive emotions, relationships and resources as main elements. Lifestyle was defined as an attitudinal concept constructed around health, attitudes, identity and social capital. This study might contribute to understand lifestyle related to the concept of well-being, especially since it emphasized the data respondents presented. The analysis with other technique of the lifestyle concept and definition, allowed it to process and illustrate through graphs a representation, not only of the elements, but of the relations between them.

Well-being and lifestyle had a positive and moderate correlation. The main elements of well-being and lifestyle graphs were health and family for both b-c and hubs. But well-being had more nodes related to positive emotions with high b-c, such as tranquility, love, joy, and happiness, also being the main hubs and leaving work at the sixth place in the b-c list and eighth within the hubs. This would give the first distinction between concepts: well-being had a more emotional contents than lifestyle.

Meanwhile, within the main nodes of lifestyle were elements about relationships and resources, such as money, work, habit, education, and nourishment. Here it would seem that work was more related, but not for much, to resources than to relationships. This would give lifestyle its second distinction as a concept related to a more practical contents that went around the resources to define it.

Also, lifestyle had a different connection towards health and gave elements that related to the identity, and attitudes which reflected in the way lifestyle connects the social to the individual or personal self, as well as the interior to the exterior image and contexts of life.

Limitations and further

Even though there was an adequate size sample which allowed a statistical analysis, a wider sample might allow a better representation of other groups within the Mexico City Metropolitan Zone population, as well as a more diverse sample considering the ses and age variables.

The lifestyle and well-being are constructs that develop within the people's lives. Recent events might influence both variables worth studying.

The correspondence analysis might have oversimplified the complex relations within the concept, and the correlations analysis would need a bigger sample to show a better representation of the relation between well-being and lifestyle concepts and their elements.

REFERENCES

Albert, R., & Barabasi, A. L. (2002). Statistical mechanics of complex networks. Reviews of Modern Physics, 74, 47-97. https://doi.org/10.1103/RevModPhys.74.47

American Psychological Association. (2022). APA Dictionary Attitude. Retrieved from https://dictionary.apa.org/attitude

Barabási, A-L. (2021). Network science. Retreived from http://networksciencebook.com/

Becker, O. A. & Lois, D. (2014). Lifestyle Homogamy in Couple Relationships. In A. Michalos (Ed.) (2014). Encyclopedia of Quality of Life and Well-Being Research (pp. 3607-3611). Retrieved from http://link.springer.com/referencework/10.1007%2F978-94-007-0753-5. https://doi.org/10.1007/978-94-007-0753-5

Binder, C. & Schöll, R. (2010). Structured mental model approach for analyzing perception of risks to rural livelihood in developing countries. Sustanability, 2, 1-29. https://doi.org/10.3390/su2010001

Campos, C., Lima, M. L., Devlin, A. S., & Hernández B. (2016). Is it the place or the people? Dissentangling the effects of hospitals' physical and social environments on well-being. Environment and Behavior, 48(2), 299-323. https://doi.org/10.1177/0013916514536182

Canright G. (2009). Complex Networks and Graph Theory. In E. Meyers (Ed.) Encyclopedia of Complexity and Systems Science. Springer, New York, NY. https://doi.org/10.1007/978-0-387-30440-3_83

Clark, A. E., & Oswald, A. J. (2006). The curved relationship between subjective well-being and age (Working paper No. 2006-29, JEL Codes: C23, I31, J10). Paris, Francia: Paris-Jourdan Sciences Economiques. Retrieved from https://halshs.archives-ouvertes.fr/halshs-00590404/document

Diener, E. (1984). Subjective Well-being. Psychological Bulletin, 95(3), 542-575



- Diener, E., Emmons, R. A. Larsen, R. J. & Griffin, S. (1985). The satisfaction with life scale. Journal of Personality Assessment, 49(1), 71-75
- Diener, E., Suh, E. M., & Oishi, S. (1997). Recent findings on subjective well-being. Indian Journal of Clinical Psychology, 24(1), 25-41. Retrieved from https://intranet.newriver.edu/images/ stories/library/Stennett_Psychology_ Articles/Recent%20Findings%20on%20Subjective%20 Well-Being.pdf
- Easterlin, R. A., & Sawangfa, O. (2007). Happiness and domain satisfaction: theory and evidence, discussion paper series, IZA DP No. 2584. Bonn: Forschungsinstitut zur Zukunft der Arbeit Institute for the Study of Labor. Retrieved from http://ftp.iza.org/dp2584.pdf
- El Financiero. (2022, agosto 20). ¿Qué países trabajan más horas al año? Spoiler: México es el que dedica más tiempo. México es uno de los países donde se trabajan más horas, pero la productividad es baja. El Financiero, Sección Economía. Recuperado de https://www.elfinanciero.com.mx/economia/2022/08/20/que-paises-trabajan-mas-horas-al-ano-spoiler-mexico-es-el-que-dedica-mas-tiempo/
- Evans, S. (2014). Well-being. In T. Teo (Ed.) Encyclopedia of Critical Psychology (pp. 2073-2075). New York: Springer. https://doi.org/10.1007/978-1-4614-5583-7
- González, M., Coenders, G., & Casas, F. (2008). Using nonlinear models for a complexity approach to psychological well-being. Quality & Quantity, 42, 1-21. https://doi. org/10.1007/s11135-006-9032-8
- González, M., Coenders, G., Saez, M., & Casas, F. (2010). Nonlinearity, Complexity and Limited Measurement in the Relationship between Satisfaction with Specific Life Domains and Satisfaction with Life as a Whole. Journal of Happiness Studies, 11, 335-352. https://doi. org/10.1007/s10902-009-9143-8
- Gough, B. (2014). Lifestyle. In T. Teo (Ed.) Encyclopedia of Critical Psychology (pp. 1087-1088). New York: Springer. https://doi.org/10.1007/978-1-4614-5583-7
- Graham, C., & Lora, E. (Eds.). (2009). Paradoxes and Perspectives in Quality of Life. Washington: The Brookings Institution. ISBN: 9780815703266
- Graham, H., & White, P.C.L. (2016). Social determinants and lifestyles: integrating environmental and publica health perspectives. Public Health, 30, 1-9. http://dx.doi.org/10.1016/j.puhe.2016.09.019
- Helliwell, J. (2001). Social Capital, the Economy and Well-being. The Review of Economic Performance and Social Progress, in Andrew Sharpe, Executive Director & France St-Hilaire, Vice-President, Research & Keith Banting, Di (ed.) The Review of Economic Performance and Social Progress 2001: The Longest Decade: Canada in the 1990s, volume 1. Canada: Centre for the Study of Living Standards; The Institutute for Research on Public Policy.
- Hilbert, M. (2013, Octubre 31st). 1 CCSSCS: Introducción y características de los sistemas complejos sociales. Recuperado de https://www.youtube.com/watch?v=c6_K_t0LLww&list=PLazGm-TmJ6iQidzEco7CgHlFjoNCZv H8E
- Huppert, F. A., & So, T. T. (2013). Flourishing across Europe:

- Application of a New Conceptual Framework for defining well-being. Social Indicators Research, 110(3), 837-861. https://doi.org/10.1007/s11205-011-9966-7
- Kaplan, D. (2004). The SAGE handbook of quantitative methodology for the social sciences. Madison, WS: The Sage Research Handbooks. ISBN: 0761923594
- Land, K., Michalos, A., & Sirgy, J. (2012). Prologue: The Development and Evolution of Research on Social Indicators and Quality of Life (QOL). En K. Land, A. C. Michalos y J. Sirgy (Eds.) Handbook of Social Indicators and Quality of Life Research. Springer Science + Business Media. USA. ISBN: 9789400724211
- Li, L., Alderson, D., Doyle, J. C., & Willinger, W. (2005). Towards a theory of scale-free graphs: definition, properties, and implications. Internet Mathematics, 2(4), 431-523. https://doi.org/10.1080/15427951.2005.10129111
- Linguiardi, V. & McWilliams, N. (2017). Psychodynamic diagnostic manual: PDM-2, 2nd edition. New York: The Guilford Press. ISBN 9781462530540
- Nussbaum, M.C. (2003). Capabilities as Fundamental Entitlements: Sen and Social Justice. Feminist Economics, 9(2-3), 33-59. https://doi.org/10.1080/1354570022000077926
- Organization for Economic Co-operation and Development. (2020). Measuring Well-being and Progress: Well-being Research. Retrieved on 17th of June of 2020 from https://www.oecd.org/wise/measuring-well-being-and-progress.htm.
- Øvrum, A. (2011). Socioeconomic status and lifestyle choices: evidence from latent class analysis. Health Economics, 20, 971-984 doi 10.1002/hec.1662
- Polanco, X. (2006). Análisis de redes: introducción. In M. Albornoz & C. Alfaraz Redes de conocimiento: Construcción, dinámica y gestión, RICYT/CYTED/UNESCO, pp.77-112. ISBN-10: 987988311X
- Prendergast, K. B., Schofield, G. M., & Mackay L. (2016). Associations between lifestyle behaviours and optimal wellbeing in a diverse sample of New Zealand adults. BMC Public Health, 16(62), 1-11. https://doi.org/10.1186/s12889-016-2755-0
- Prochaska, J. O., Evers, K. E., Castle, P. Hl, Johnson, J. L., Prochaska, J. M., Rula, E. Y., Cobereley, C., & Pope, J. E. (2012). Enhancing multiple domains of well-being by decreasing multiple health risk behaviors: a randomized clinical trial. Population Health Management, 15(5), 276-286. https://doi.org/10.1089/pop.2011.0060
- Qualtrics.com. (2022). What is factor analysis and how does it simplify research findings? Retrieved on November 30th, 2022 from https://www.qualtrics.com/experience-management/research/factor-analysis/
- Reyes, I. & García y Barragán, L. F. (2008). Procedimiento de validación psicométrica culturalmente relevante: un ejemplo. Psicología social en México, XII, 625-630. México: AMEPSO. ISBN 9685411123
- Rojas, M. (2004). The complexity of well-being a life satisfaction conception and a domains-of-life approach, paper for the International Workshop on Researching well-being in developing countries, Hanse Institute for Advanced Study, Delmenhorst, near Bremen, Germany, 2-4the July, 2004. Retrieved from https://silo.tips/download/the-



complexity-of-well-being-a-life-satisfaction-conception-and-a-domains-of-lif

- Rojas, M. (2006). Life satisfaction and satisfaction in domains of life: is it a simple relationship? Journal of Happiness Studies, 7, 467-497. https://doi.org/10.1007/s10902-006-9009-2
- Ruelas, E. & Mansilla, R. (Coords.) (2005). Las ciencias de la complejidad y la innovación médica. México: Universidad Nacional Autónoma de México, Secretaría de Salud y Plaza y Valdés, S. A. de C. V. ISBN 970-722-437-1
- Seligman, M. (2011). Flourish: a visionary new understanding of happiness and well-being. New York: Free Press. ISBN: 9781439190753
- Spellerberg, A. (2014). Lifestyle(s). In A. Michalos (Ed.) (2014). Encyclopedia of Quality of Life and Well-Being Research (pp. 3611-3614). Retrieved from http://link.springer.com/referencework/10.1007%2F978-94-007-0753-5. doi: 10.1007/978-94-007-0753-5
- Streiner, D.L., Norman, G. R., & Cairney, J. (2015). Health measurement scales: A practical guide to their development and use. Oxford University Press. ISBN 9780199685219
- Thirlaway, K. & Upton, D. (2009). The Psychology of Lifestyle Promoting Healthy Behaviour. London: Routledge. ISBN 9780415416627
- Trudel-Fitzgerald, C., Millstein, R. A., Von Hippel, C., Howe, C. J., Tomasso, L. P., Wagner, G. R., & VanderWeele, T. J. (2019). Psychological well-being as parto f the public health debate? Insight into dimensiones, interventions and policy. BMC Public Health, 19(1712), 1-11. https://doi.org/10.1186/s12889-019-8029-x

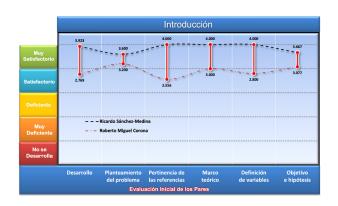
- United Nations Development Program. (2021). Objetivos de Desarrollo Sostenible. Retrieved on August 23rd, 2021 from https://www1.undp.org/content/undp/es/home/sustainable-development-goals/background. html#:~:text=Los%20Objetivos%20de%20 Desarrollo%20 Sostenible,R%C3%ADo%20de%20Janeiro%20en%202012.
- Valdez, J. L. (1998). Las redes semánticas naturales: usos y aplicaciones en psicología social. México: UAEM. ISBN 978-607-422-150-3
- Verhofstadt, E., Bleys, B., & Van Ootegem, L. (2015). Reference-dependency of happiness ratings. Journal of Happiness Study, 16, 1437-1454. https://doi.org/10.1007/s10902-014-9567-7
- World Health Organization. (2008). The Third Ten Years of the World Health Organization: 1968-1977. Geneva, Switzerlad:WHO. ISBN 978 92 4 156366 6. Retrieved from https://apps.who.int/iris/bitstream/handle/10665/43924/9789241563666 eng.pdf
- Zuzaneck, J., & Hilbrecht, M. (2016). Enforced leissure: time use and its well-being implications (abstract). Time and Society, 0(0), 1-23. https://doi.org/10.1177/0961463X16678252

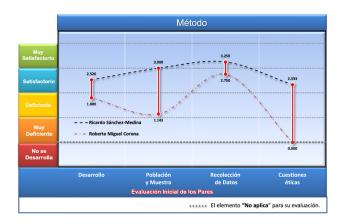


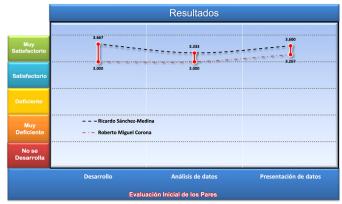


DIMENSIÓN CUANTITATIVA

Perfil de Evaluación entre pares



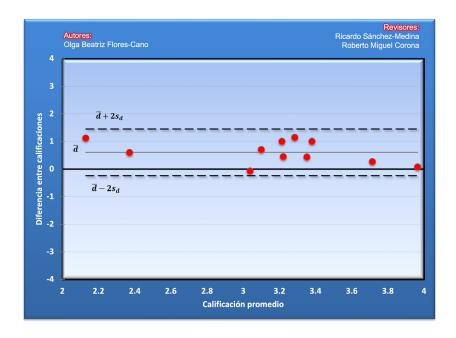




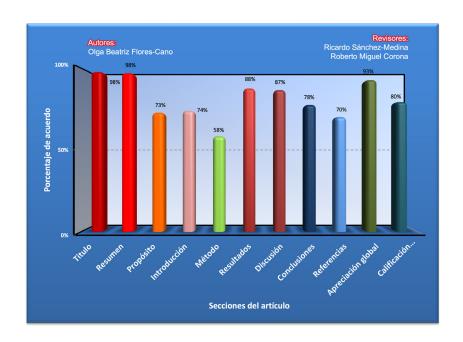




Índice de Concordancia



Índice de Acuerdo





DIMENSIÓN CUALITATIVA

Revisor 1	Revisor 2				
Ricardo Sánchez Medina	Roberto Miguel Corona				
Título/Autoría					
Sin comentarios	sin comentarios agregados				
Resu	ımen				
Es necesario reestructurar el resumen, el objetivo debe ser claro, el método no es del todo explicativo, algunas ideas cortadas. Se anexan comentarios al documento.	Al ser el inglés el idioma base para la redacción de todo el artículo, se considera el resumen escrito en este mismo idioma para evaluar el rubro; sin embargo, el resumen en español no cumple con los criterios para ser publicado. La redacción de la versión en español es poco clara y no refleja el contenido del escrito. Se recomienda elaborar nuevamente el resumen en español.				
Próposito	del Estudio				
Es necesario precisar la contribución de las redes se- mánticas en el tema. Aunque se señala, sería pertinente desarrollarlo.	Sin comentarios agregados				
Introducción					
Se desarrolla adecuadamente la introducción, aunque es necesario resaltar la contribución de las redes en el tema, dada la gran literatura que se reporta en la introducción. Se recomienda que e objetivo sea nombrado al final de la introducción	Respecto de la introducción, se recomienda realizar un ejercicio de síntesis, ya que hay argumentos que son redundantes y podrían agruparse en una sola idea. Esto ayudaría a reducir el tamaño de este apartado. Por otro lado, la bibliografía citada tiene en promedio una década de su publicación, esto genera una carencia en el vínculo con el conocimiento actual. Se recomienda incluir estudios actualizados que permitan ubicar los datos dentro del cuerdo de conocimiento reciente.				
Método					
Es necesario desarrollar el método y dividirlo cuando menos en tres apartados: participantes, instrumentos y procediimiento.	En términos de la metodología, falta describir con mayor detalle el procedimiento empleado para la recolección de los datos. No se incluyen algunos apartados como el tipo de muestreo. Se recomienda organizar claramente la información de la metodología en los rubros solicitados por la revista. Se especifica que se cuenta con un consentimiento informado, sin embargo, no se adjunta evidencia del documento o de alguna evaluación por comités de ética. Se recomienda adjuntar dicha evidencia para cumplir con las consideraciones éticas solicitadas.				



Revisor 1	Revisor 2			
Resul	ados			
Los resultados son exhaustivos, pero pertinentes y adecuados. Para mayor claridad sería importante que dentro de la introducción se expliciten los objetivos específicos, y que en resultados se vaya haciendo mención a cada uno de ellos. En esta sección se recomienda solo presentar los resultados sin análisis teórico, ni autores, para ello está la sección de discusión	Se recomienda evitar ser reiterativos en la presentación de los resultados, particularmente en los datos presentados en los párrafos y en las tablas.			
Discusión				
Hacer la discusión en el orden en que fueron presentados los resultados. Es necesario presentar las limitaciones del estudio y las líneas de acción futura	Sin comentarios agregados para esta sección.			
Conclusiones				
Señalar de qué manera se contribuye en el tema, como las redes semánticas coadyuvaron en ello. Hubo algo diferente a lo ya propuesto en la introducción	No hay discusión			
Referencias				
Verificar detalles de formato APA, en general bien	Se recomienda agregar las limitaciones del estudio y propuestas para investigaciones futuras.			

