

AGAIN AND NEW LIFE EVENTS STRESS SCALE DEVELOPMENT STUDY: SCALE DEVELOPMENT AND INITIAL VALIDITY STUDIES

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Abstract

In this study, life events were focused on assuming that life changes represent reasonable conceptual stressors. It is seen that existing measurement tools lose their validity after a while due to the dynamic structure of life and cultural differences. In this direction, it was aimed to develop a new stress scale based on current and life events. Thus, it was considered to use information about individuals' recent and current life events in the form of a self-report checklist for measurement purposes. The study began by writing items asking individuals to evaluate which life events they had recently experienced using short stem descriptors (e.g., change in economic situation...). 111 Items were written considering the literature and existing scales. Response options were created in which the items were asked to be scored as percentages between 1 and 100. The items were first applied to 1523 people, 697 male (45.8%) and 826 female (54.2%), aged between 18 and 70 (mean = 26.89, s = 10.47). The number of items was reduced to 50 through item analysis. When the items were ranked in order of importance, the first three items with the highest evaluation were "High cost of living", "Economic environment (inflation, economic crisis, etc.)" and "Death of a close family member". It was determined that the items were evaluated between 38.55% (Repairs, renovations in the apartment, street, neighborhood, etc. environmental and municipal services) and 82.00% (Cost of living) in the whole group, between 37.95% (Minor legal violations such as traffic tickets) and 84.72% (Cost of living) in the female group, and between 36.83% (Repairs, renovations in the apartment, street, neighborhood, etc. environmental and municipal services) and 78.73% (Cost of living) in the male group.

Keywords: *Stress scale, life events, stressors, scale development.*

1. Introduction

Psychological distress experienced against stress factors based on daily life events plays a role in the emergence of emotional disorders (Hammen, 2005; Parrish et al., 2011; Van Winkel et al., 2008). Changes in immune and metabolic parameters that occur with the release of physiological mediators are protective and necessary in the short term (O'Connor et al., 2021). In this respect, the stress response helps to cope with acute life-threatening events (Miller and Rasmussen, 2010). However, chronic stress increases the risk of emotional disorders and becomes harmful to health (Miller and Rasmussen, 2010; McEwen, 2000; O'Connor et al., 2021; Word et al., 2022).

The level of controllability over daily negatively evaluated events causes these events to be perceived as stressful (Henderson et al., 2012; Miller and Rasmussen, 2010). Stress factors based on life events are also shown as a predictor of emotional disorders (Charles et al., 2013). In this way, life events play an important role in individual health (Almeida, 2005). Health problems, family problems, job changes, etc. can be given as examples of life events (Almeida, 2005; Scholten et al., 2020). However, it is difficult to convert subjectively perceived stressful events into objective normative measurements and to distinguish between chronic and acute stressors (Hahn and Smith, 1999). Another problem is the relative intensity of events such as traffic jams and traffic accidents and whether they occur daily (Farmer et al., 2017; Miller and Rasmussen, 2010). For this reason, significant weaknesses or inadequacies are observed in the measurement of stress (Harkness and Monroe, 2016).

In this study, it was assumed that all kinds of life changes represent stressors and the focus was on possible life events without making any distinction between major or minor. In addition, the self-report checklist used by Holmes and Rahe (1967) was also taken into account. However, it was observed that the measurement tools lost their relevance over time due to the dynamic flow of life and cultural differences.

In this study, it was aimed to develop a measurement tool using short sentence stem descriptors by taking all these into consideration and focusing on current life events.

2. Methods

2.1. Item pool

An item pool was created by considering existing scales and current life events. The items were created in the form of short sentence body descriptors (e.g. change in living conditions...). The 111 items were applied with the option of answering according to the level of importance, between 1 (lowest) and 100 (highest).

2.2. Participants

A total of 1523 people participated in the study, 697 males (45.8%) and 826 females (54.2%), aged between 18-70 (mean = 26.89, s = 10.47). Of the participants, 1161 were single (76.2%), 325 were married (21.3%), 33 were widowed or divorced (2.2%) (4 people did not specify their marital status (%0.3)), 87 were primary or secondary school graduates (%5.7), 270 were high school graduates (%17.7), 1163 were university graduates or students (%76.4) (3 people did not specify their educational status (%0.2)), 234 had a low income status (%15.4), 1009 had a medium income status (%66.3) and 247 had a good income status (%16.2) (33 people did not specify their income status (%2.2)).

2.3. Application

The application of the study was carried out in 2024 using a printed form. The application form also included a survey form. The application took approximately 10-13 minutes for one person.

2.4. Results

In the analysis of the data, firstly the item analysis was conducted for the Life Events Stress Scale. As a result of the item analysis, 61 of the draft scale items were removed and the number of items was reduced to 50. The Cronbach Alpha internal consistency reliability coefficient for the selected items was .94. The item analysis results for the selected items are given in Table 1.

Table 1. Item analysis results for selected items of the Life Events Stress Scale.

Items (n = 1523)	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
1. Changes in family meetings or gatherings	1289.44	653458.67	.29	.94
2. Repairs, renovations, etc. in the apartment, street, neighborhood, environmental and municipal services	1287.50	655882.07	.27	.94
3. Festivals, weddings, etc. ceremonies	1287.14	652424.88	.30	.94
4. Changes in eating habits	1273.44	647786.98	.35	.94
5. Divorce	1304.29	647209.59	.49	.94
6. Sexual problems	1299.25	651290.85	.36	.94
7. Changes in working hours or conditions	1282.61	637851.67	.50	.94
8. One of the children leaving home	1297.86	643768.67	.46	.94
9. Earthquake, flood, etc. natural disasters	1258.18	641722.07	.40	.94
10. Change in religious or belief activities	1296.52	645614.85	.44	.94
11. Change in income status	1259.94	639926.94	.45	.94
12. Retirement	1304.03	651479.52	.40	.94
13. Economic environment (inflation, economic crisis, etc.)	1246.58	650378.65	.30	.94
14. Having an argument with a spouse	1296.02	643017.79	.48	.94
15. Spouse starting or quitting a job	1303.77	646548.28	.52	.94
16. Death of a spouse	1305.74	643187.84	.60	.94
17. Separation from spouse or home, moving away	1298.80	639784.69	.55	.94
18. New family member coming home (birth, relative moving in, etc.)	1297.21	638694.80	.55	.94
19. Getting married	1303.48	641749.63	.60	.94
20. Reconciliation, reconciliation, reunion in marriage	1304.17	643337.50	.60	.94

21. Switching to a different job, field of work or sector	1295.93	639807.22	.54	.94
22. Being subject to foreclosure proceedings	1303.88	641308.62	.62	.94
23. Pregnancy	1304.71	646500.54	.52	.94
24. Imprisonment	1303.99	643185.66	.57	.94
25. High cost of living	1240.95	653204.17	.27	.94
26. Having legal or judicial problems	1297.39	638336.75	.58	.94
27. Change in address (moving, etc.)	1291.59	642100.28	.46	.94
28. Climate and environmental change (drought, extreme heat, etc.)	1280.29	641822.70	.46	.94
29. Having problems with co-workers	1297.14	641525.33	.57	.94
30. Change in responsibilities at work	1297.07	642471.71	.54	.94
31. Problems at work, with a manager or boss	1298.31	640282.04	.59	.94
32. New arrangements or changes at work	1297.98	642576.55	.56	.94
33. Being laid off or fired	1302.17	640490.38	.62	.94
34. Changes in personal habits	1276.55	640739.71	.48	.94
35. Personal illness or injury, etc. health problems	1281.31	636472.57	.53	.94
36. Loan (home, car, etc.) debts	1293.01	638402.07	.54	.94
37. Credit card (or other) debts	1285.26	637681.37	.51	.94
38. Changing schools or universities	1301.53	646059.63	.49	.94
39. Starting or finishing school or universities	1287.23	643091.20	.40	.94
40. Having significant personal success or failure	1273.95	637270.08	.49	.94
41. Changes in social activities	1277.23	646280.85	.38	.94
42. Vacation	1281.84	642349.72	.41	.94
43. Minor legal violations, such as traffic tickets	1302.59	650157.60	.45	.94
44. Traffic accident	1300.68	642010.82	.56	.94
45. Changes in sleeping habits	1269.01	644178.82	.38	.94
46. Political environment in the country	1255.61	647343.09	.31	.94
47. Death of a close family member	1288.64	634384.34	.52	.94
48. Death of a close friend	1295.91	634182.27	.60	.94
49. Health problems experienced by a close person (friend, family member, etc.)	1281.51	636328.90	.52	.94
50. Changes in living conditions and standards	1266.50	639660.65	.46	.94

When the items selected for the Life Events Stress Scale were ranked in terms of the average score (importance level) given by all participants (n = 1523) while answering, the cost of living, economic environment and political environment were the first three most important items (Table 2).

Table 2. Descriptive statistics for the Life Events Stress Scale.

Items (ordered by importance level) n = 1523	Minimum	Maximum	Mean	Mean	Std. Dev.
25. High cost of living	1	100	73.86	73,86	33,54
13. Economic environment (inflation, economic crisis, etc.)	1	100	68.24	68,24	36,17
46. Political environment in the country	1	100	59.20	59,20	40,42
9. Earthquake, flood, etc. natural disasters	1	100	56.63	56,63	40,13
11. Change in income status	1	100	54.87	54,87	38,12
50. Changes in living conditions and standards	1	100	48.31	48,31	38,06
45. Changes in sleeping habits	1	100	45.80	45,80	38,46
4. Changes in eating habits	1	100	41.37	41,37	35,30
40. Having significant personal success or failure	1	100	40.86	40,86	38,65
34. Changes in personal habits	1	100	38.26	38,26	35,35
41. Changes in social activities	1	100	37.58	37,58	35,08
28. Climate and environmental change (drought, extreme heat, etc.)	1	100	34.52	34,52	34,85
35. Personal illness or injury, etc. health problems	1	100	33.50	33,50	36,56
49. Health problems experienced by a close person (friend, family member, etc.)	1	100	33.30	33,30	37,70
42. Vacation	1	100	32.97	32,97	38,07
7. Changes in working hours or conditions	1	100	32.20	32,20	37,08

37. Credit card (or other) debts	0	100	29.55	29,55	36,85
3. Festivals, weddings, etc. ceremonies	1	100	27.67	27,67	31,80
39. Starting or finishing school or universities	1	100	27.59	27,59	38,15
2. Repairs, renovations, etc. in the apartment, street, neighborhood, environmental and municipal services	1	100	27.31	27,31	27,80
47. Death of a close family member	1	100	26.17	26,17	39,96
1. Changes in family meetings or gatherings	1	100	25.37	25,37	30,75
27. Change in address (moving, etc.)	1	100	23.22	23,22	35,09
36. Loan (home, car, etc.) debts	1	100	21.80	21,80	33,99
48. Death of a close friend	1	100	18.90	18,90	35,31
21. Switching to a different job, field of work or sector	1	100	18.88	18,88	32,36
14. Having an argument with a spouse	1	100	18.79	18,79	32,21
10. Change in religious or belief activities	1	100	18.29	18,29	31,38
30. Change in responsibilities at work	1	100	17.74	17,74	29,38
29. Having problems with co-workers	1	100	17.67	17,67	29,08
18. New family member coming home (birth, relative moving in, etc.)	1	100	17.60	17,60	33,10
26. Having legal or judicial problems	1	100	17.42	17,42	31,85
8. One of the children leaving home	1	100	16.95	16,95	32,45
32. New arrangements or changes at work	1	100	16.83	16,83	28,72
31. Problems at work, with a manager or boss	1	100	16.50	16,50	29,41
17. Separation from spouse or home, moving away	1	100	16.01	16,01	32,19
6. Sexual problems	1	100	15.56	15,56	28,73
44. Traffic accident	1	100	14.13	14,13	29,30
38. Changing schools or universities	1	100	13.28	13,28	28,01
33. Being laid off or fired	1	100	12.64	12,64	28,11
43. Minor legal violations, such as traffic tickets	1	100	12.22	12,22	24,94
19. Getting married	1	100	11.33	11,33	27,59
15. Spouse starting or quitting a job	1	100	11.04	11,04	25,90
22. Being subject to foreclosure proceedings	1	100	10.93	10,93	27,25
24. Imprisonment	1	100	10.82	10,82	27,57
12. Retirement	1	100	10.78	10,78	26,00
20. Reconciliation, reconciliation, reunion in marriage	1	100	10.64	10,64	25,91
5. Divorce	1	100	10.52	10,52	26,54
23. Pregnancy	1	100	10.10	10,10	26,28
16. Death of a spouse	1	100	9.07	9,07	26,05

3. Discussion

Lack of control over unpleasant events causes these events to be perceived as stressful (Mansell, 2005). At the same time, there is a relationship between stress and physical and mental illnesses (Vaessen et al., 2021). It is reported that research on daily hassles provides a useful framework. On the other hand, some of the events do not occur daily but occasionally. However, these events can still have a negative effect on mental health (Miller and Rasmussen, 2010). The effects of stress depend on the type, intensity and duration of stress. The stress effect intensities of life events also vary. Therefore, it is necessary to examine the effects of different intensities and different types of stressors (Zelena et al., 1999).

Studies support the usefulness of measuring acute psychological reactions. Because these can be important indicators of preventable trauma-related morbidity and mortality that require intervention in the long term (Garfin et al., 2018). In the scale developed in this study, the item selection was made by taking all these into account.

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