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Social Support Levels, Mental Health Status and Related Factors in Postpartum Women During the Pandemic

Postpartum Dönemdeki Kadınların Pandemi Sürecinde Sosyal Destek Düzeyleri, Ruh Sağlığı Durumları ve İlişkili Faktörler

Özlem Kaplan[1], Fulya Çağlı[1]

[1]Erciyes University, Kayseri, Turkey

ABSTRACT

The aim of this study was to determine the social support levels, mental health status and related factors of women in the postpartum period during the pandemic process. The data of the descriptive study were collected between 12 May and 27 June 2022. The study was conducted with 264 postpartum mothers who gave birth in a university hospital. Data were collected using Personal Information Form, General Health Questionnaire (GHQ-28) and Multidimensional Scale of Perceived Social Support (SDS). The total mean score of the mothers' GHQ-28 questionnaire was 5.70±5.44, and it was determined that 47.3% of them perceived their mental health as risky. There is a statistically significant difference in the GHQ-28 score distributions according to the mothers' age, education level, smoking, family and friend relations, desired pregnancy status, and previous psychological problems. In addition, when the factors related to SBL were examined, it was determined that the level of education, financial situation, friend relationship, and previous psychological problems were statistically significant. There is a positive and significant relationship between mothers' mental health status and social support levels. As a result, almost half of the mothers are at risk for their mental health. Some introductory characteristics of mothers affect their general health status and social support levels. According to these findings, it is recommended that more social support be given to mothers with risky mental health conditions by their families and health personnel.

Keywords: Mental health, mother, pandemic, postpartum, social support

ÖZ

Çalışmada postpartum dönemdeki kadınların pandemi sürecinde sosyal destek düzeylerini, ruh sağlığı durumlarını ve ilişkili faktörleri belirlemek amaçlanmıştır. Tanımlayıcı türde yapılan çalışmanın verileri 12 Mayıs-27 Haziran 2022 tarihleri arasında toplanmıştır. Çalışma bir üniversite hastanesinde doğum yapan postpartum dönemdeki 264 anne ile yapılmıştır. Veriler Kişisel bilgi formu, Genel Sağlık Anketi (GSA-28) ve Çok Boyutlu Algılanan Sosyal Destek Ölçeği (SDÖ) kullanılarak toplanmıştır. Annelerin GSA-28 anketi toplam puan ortalaması 5,70±5,44 olup, %47,3'sinin ruh sağlığını riskli olarak algıladığı belirlenmiştir. Annelerin yaş, eğitim düzeyi, sigara kullanımı, aile ve arkadaş ilişkisi, gebeliğin istenme durumu, daha önce psikolojik sorun yaşama durumlarına göre GSA-28 puan dağılımlarında istatistiksel olarak anlamlı farklılık bulunmaktadır. Ayrıca SDÖ ile ilişkili faktörler incelendiğinde eğitim düzeyi, maddi durumu, arkadaş ilişkisi, daha önce psikolojik sorun yaşama durumlarının istatistiksel olarak anlamlı olduğu tespit edilmiştir. Annelerin ruh sağlığı durumları ile sosyal destek düzeyleri arasında ise pozitif yönlü anlamlı bir ilişki bulunmaktadır. Sonuç olarak annelerin neredeyse yarısı ruh sağlı açısından riskli durumdadır. Annelerin bazı tanıtıcı özellikleri genel sağlık durumları ve sosyal destek düzeylerini etkilemektedir. Elde edilen bu bulgulara göre ruh sağlığı durumları riskli olan annelere aileleri ve sağlık personelleri tarafından daha fazla sosyal destek verilmesi önerilmektedir.

Anahtar sözcükler: Anne, pandemi, postpartum, ruh sağlığı, sosyal destek

Address for Correspondence: Özlem Kaplan, Erciyes University, Faculty of Health Sciences, Department of Obstetrics and Gynecology Nursing, Kayseri, Turkey
E-mail: ozlem.kaplan@erciyes.edu.tr **Received:** 06.09.2022 **Accepted:** 11.11.2022
ORCID ID: 0000-0003-1050-8804

Introduction

Birth is when the anatomical, physiological and hormonal changes during pregnancy return to normal in the 6-8 weeks. At the same time, the bond between mother and baby is established with lactation. This period is called the puerperium and represents a time of healing and adaptation (Yücel 2018). Mothers face many problems, such as pain and discomfort postpartum, difficulty in sexual intercourse, lactation-related breast problems, physical fatigue, insomnia, and psychological distress (Bay 2015, Alshikh et al. 2016). A systematic review reported that 17% of mothers in the postpartum period before the pandemic experienced postpartum psychological distress (Shorey et al. 2018). Factors causing psychological distress include economic inadequacy, pregnancy-related complications, low education level, unplanned pregnancy, being a housewife, and inadequate social support (Shorey et al. 2018, Ahmad et al. 2021).

Women will receive from their close circle in the postpartum period is the biggest helper in coping with the problems they experience (Bay 2015, Yücel 2018). Social support refers to the emotional, material, instrumental assistance, information support, and empathy relationships that individuals have obtained from their social environment, both in a social problem they have experienced and in maintaining their general well-being. In this process, adequate support of the mother affects the mother positively, both physically and mentally (Pınar and Polat 2019). Helping the mother and emotional support for baby care and housework reduces the stress level of the mother, facilitates the adaptation to the motherhood role, contributes to the establishment of the bond between the mother and the baby, and supports infant development (Aytaç and Yazıcı 2020, Dib et al. 2020, Fewtrell 2020, Yılmaz and Dilan 2021).

The COVID-19 pandemic has negatively affected many health and social life areas. Changes in routines, such as staying at home, travel restrictions, isolation, and social distance, have entered our lives. During the pandemic, women especially faced many difficulties during pregnancy, childbirth, and the puerperium (Rahaman 2020, Karasek et al. 2021, Oskovi-Kaplan et al. 2021). Restrictions prevented family and friends from visiting and supporting the mother in the postpartum period. Due to this situation, mothers in the postpartum period have become prone to psychological disorders (Tuncer 2021, Zhou et al. 2021, Goldstein et al. 2022, Tartici and Beydağ 2022). A systematic review determined that 34% of mothers experienced postpartum psychological distress during the pandemic (Chen et al. 2022). As a result, the amount of help received for housework, and newborn care decreased, and the mother felt lonely and inadequate (Cömert and Bingöl 2021, Kurt and Söyler 2021). This feeling may cause anxiety, fear, and panic in postpartum women and damage mother-infant interaction (Oskovi-Kaplan et al. 2021, Zhou et al., 2021, Harrison et al. 2022). Therefore, it is necessary to determine the risk and protective factors that may affect the mental health of women who become new mothers during the pandemic period. This study aimed to determine mothers' social support and mental health status during the pandemic.

For the purpose of the study, in the pandemic process, mothers in the postpartum period "What is their mental health status and social support?", "What are the features that affect the mental health status and social support levels?" and "What is the relationship between mental health status and social support?" The answers to the research questions were sought.

Method

Sample

This research was a descriptive relational type. The research was conducted in the perinatology polyclinic of a state university health practice and research center hospital within the first six weeks postpartum and applied for control between 12 May - 17 June 2022. Women over 18, who gave birth 20 days previously, delivered a live baby, and agreed to participate in the study were included. The study did not include mothers with psychiatric illnesses or communication disabilities. The data collection process of the study was completed with 264 mothers. To calculate the power of the research, the mean score of the General Health Questionnaire (GHQ-28) was used in the G* Power program, and the effect size was 1.52 due to the calculation. Because of the post-power analysis made by taking effect size:1.52 n:264 and alpha:0.05, the working power was determined as 99%.

Data Collection

Postpartum mothers who attended the perinatology outpatient clinic for control and met the study's inclusion criteria were informed to participate. The questionnaire, which would take an average of ten minutes if accepted, was given to the mothers. Written information about the study was available in the questionnaire form. In addition to verbal consent, written consent was obtained from the mothers stating that they agreed to participate in the study.

The Declaration of Helsinki was observed at every stage. The Academic Committee's decision, the Ethics Committee's approval from the Erciyes University Clinical Research Ethics Committee (2022/359), and the written consent of the individuals included in the study were obtained.

Data Collection Tools

The data of this study were collected with the Personal Information Form, GHQ-28, and the Multidimensional Scale of Perceived Social Support (SDS) prepared by the researchers.

Personal Information Form

The researchers prepared the form to determine the mothers' socio-demographic, obstetric, and psychological status and included 15 questions (Alshikh Ahmad et al. 2021, Oskovi-Kaplan et al. 2021, Zhou et al., 2021).

General Health Questionnaire (GHQ-28)

Goldberg, GHQ-28 is a screening test created to detect mental health problems encountered in the community and clinical settings other than psychiatry. Kılıç conducted a validity and

reliability study in Türkiye in 1996. The questionnaire consists of four sub-dimensions, each of which consists of seven items. These somatic symptoms include anxiety and sleep disorders, impaired social functioning, and severe depression. Studies have shown that the subscales are not independent of each other. The 28-item scale consists of a question about whether each individual has a recent complaint and a four-item response ranging from "less than usual" to "more than ever." The four-item response scale was used as a two-item scale in which the first two items were scored as unfavorable, and the last two items were scored as positive, which is the " GHQ-28 type scoring" method developed by Goldberg. Accordingly, items a and b were taken as "(0) zero", and items c and d as "(1) one". After the application, a minimum of 0 and a maximum of 28 points can be obtained, and a higher score increases the possibility of mental health disorders (Kılıç 1996). The cut-off point of the questionnaire is five points, and high values indicate that people are in the risk group. While the Cronbach's Alpha value of the questionnaire was found to be 0.94, it was determined as 0.89 in the present study.

Multidimensional Scale of Perceived Social Support (SDS)

Individuals can evaluate the social support they receive from family, friends, and a particular person (Zimet et al. 1988). The 12-item scale has three sub-dimensions: items measuring perceived social support from family (3,4,8,11), items measuring perceived social support from friends (6,7,9,12), and items measuring perceived social support from a particular person (1,2,5,10). Each item is evaluated with a 7- point Likert scale. The scale score is obtained by summing these sub-dimension scores, and the total score that can be obtained varies between 7 and 84. High scores indicate high perceived social support. The Cronbach's Alpha values of the scale were determined to be between 0.80-0.95 in a study conducted in three different samples (Zimet et al. 1988). In this study, Cronbach's Alpha values were found to be 0.83 in the perceived social support scale, 0.81 in the family sub-dimension, 0.82 in the friend sub-dimension, and 0.81 in the private person sub-dimension.

Statistical Analysis

The researchers used the data obtained in the study IBM SPSS Statistics Standard Concurrent User V 25 (IBM Corp., Armonk, New York, USA) in statistical software. Descriptive statistics are given as a number of units, percentage, mean ± standard deviation, median, minimum, and maximum value. Normal data distribution of numerical variables Shapiro Parametric tests were performed by evaluating with the Shapiro-Wilk normality test and QQ charts. Independent in pair-group comparisons Sample t-test was used to compare three or more groups. One-way ANOVA test was used. In the case of significance in multiple groups, the Bonferroni post hoc analysis was used. For the correlation of two continuous variables, Pearson correlation analyses were performed. The p-value of <0.05 was considered statistically significant in the analyses performed.

Results

Postpartum mothers who participated in the study are given in Table 1. According to this, 53.0% were in the 16-25 age group, 35.6% were primary school graduates, 89.4% were unemployed, 73.5% had social security, and the income of 57.2% was equal to their expenses; 96.2% did not have a chronic disease, and 88.6% did not smoke; 51.5% lived in a nuclear family, and 46.2% had good family and friend relations.

Of the mothers, 78.4% stated that they became pregnant voluntarily, while 40.9% had a child, 77.3% did not have a history of abortion, and 86.4% had not previously experienced a psychological problem. In addition, 64.4% said they had someone helping care for themselves and their babies (Table 1).

The mean GHQ-28 scale score was 5.70±5.44, and 52.7% had normal mental health. The mean SDS scores of the women were 51.95±15.66, and family, friend, and particular person sub-dimension scores were 22 .45±6.39, 16.82±7.76, and 12.67±7.12, respectively (Table 2).

There is a statistically negative and weak correlation between the GHQ-28 scale scores of the mothers and their SDS and sub-dimension scores (Table 3, $p<0.001$).

There is a statistically significant difference in the GHQ-28 score distributions of the mothers in the postpartum period according to age, education level, smoking, family and friend relationship, desired pregnancy, presence of events that negatively affected their lives in the last three months, having psychological problems before or receiving support (Table 4, $p<0.05$).

There is a statistically significant difference in SDS score distributions according to education level, financial status, duration of smoking, number of cigarettes consumed, friendships, the presence of events that negatively affected their lives in the last three months, and whether they had psychological problems or received support before (Table 4, $p<0.05$).

Discussion

During the COVID-19 pandemic, it is known that mental state disorders such as anxiety, depression, psychological distress, and insomnia increased in women during pregnancy and postpartum period compared to pre-pandemic (Alshikh et al. 2021, Chen et al. 2022). According to the systematic review results, while 17% had postpartum psychological problems before the pandemic (Shorey et al. 2018), this rate was determined to be 34%, with a severe increase during the pandemic period (Chen et al. 2022). In this study, like the literature, it was determined that the mental health levels of 47.3% of the mothers were at dangerous levels during the pandemic period. These findings show that particular care should be given to mothers who have just given birth.

Psychological problems experienced in the postpartum period may cause the mother not to adopt the parental role sufficiently, and the bond between mother and baby cannot be established (Aytaç and Yazıcı, 2020, Dib et al. 2020, Yılmaz and Dilan

Table 1. Descriptive Characteristics of Postpartum Mothers (N=264)			
Introductory Features		**n**	**%**
Age (26.42±5,82 Min=16, Max=45)	16 - 25	140	53.0
	26 - 35	100	37.9
	36 - 45	24	9.1
Level of education	None	21	8.0
	Primary school	94	35.6
	Middle School	93	35.2
	High school	36	13.6
	University	20	7.6
Working status	Working	28	10.6
	Not working	236	89.4
Social security	There is	194	73.5
	None	70	26.5
Financial situation	Income less than expenses	93	35.2
	Equivalent to income and expense	151	57.2
	Income more than expenses	20	7.6
0000-0002-3554-5989 **Chronic disease**	There is	10	3.8
	None	254	96.2
Smoking	There is	30	11.4
	None	254	88.6
Family shape	Core	136	51.5
	Wide	126	47.7
	Broken-up	2	0.8
Family relationship	Very good	114	43.2
	Good	122	46.2
	Normal	26	9.8
	Bad	2	0.8
Friend relationship	Very good	106	40.2
	Good	122	46.2
	Normal	32	12.1
	Bad	4	1.6
Number of children	A child	108	40.9
	Two kids	69	26.1
	Three children and up	87	33.0
Abortion	There is	60	22.7
	None	204	77.3
Desired state of pregnancy	Yes	207	78.4
	No	44	16.7
	It doesn't matter	13	4.9
Have had a previous psychological problem	Evet	36	13.6
	Yes	228	86.4
Presence of a helper for the baby and its own care	There is	170	64.4
	None	94	35.6

2021). With the early detection and treatment of psychological problems and risk factors in the postpartum period, it will be possible to prevent these conditions (Çeber et al. 2002). In this study, in which the risk factors affecting the mental health status of women in the postpartum period were investigated, there was no significant relationship between low education level, insufficient social support, low-income family and friend relations, advanced age, smoking, unwanted/unstable pregnancy, and previous psychological distress and perceived mental health status a relationship was found. Similar studies in the literature have also proven the adverse effects of lack of social support, low education level, smoking, unwanted pregnancies, and previous psychological problems on mental health (Ghaedrahmati Kazemi et al. 2017, Obrochta et al. 2020, Alshikh Ahmad et al. 2021, Zhou et al. 2021). However, in the study conducted by Alshikh Ahmad et al. (2021), unlike our study, it was determined that young mothers are more at risk in terms of mental health. This situation may be because women have more responsibility for housework and childcare in line with their gender roles, and this situation increases with advanced age. In addition, it was thought that older women were more at risk in terms of mental health due to the mental fatigue brought on by aging. Considering the possibility that people who have had psychological problems before are prone to psychological issues (Hodo 2006), the importance of identifying these risky groups and psychological support comes to the fore, especially in pandemic conditions.

Although many family planning methods exist, unwanted pregnancies remain a problem. Mothers who do not accept their babies face depression, not breastfeeding, smoking, and alcohol use (Danacı et al. 2002). In our study, when the desired pregnancy status was examined, it was seen that the GSA-28 score of women who became pregnant unplanned was higher. Whether the pregnancy is desired or not, the reactions of women to the pregnancy process and delivery may differ. Unwanted pregnancy may cause the woman not to take enough care of herself and her baby during pregnancy (such as not reducing caffeine or cigarette consumption and not paying attention to vitamin use and nutrition) (Motlagh et al. 2020). It was observed that these women's social support perceptions were lower than those of women who became pregnant voluntarily. Similarly, İnandı et al. (2002) with Alshikh Ahmad et al. (2021) showed that the risk of depression increases in unintended pregnancies. For this reason, midwives and nurses have essential responsibilities in reducing the negative consequences of unwanted pregnancies. With their support, these women may understand their feelings and values about their pregnancy.

Our study showed a significant difference between mothers' SDS scores according to education level, financial situation, and friend relationship status. The study's findings show that, similar to the literature, the perception of social support is low in the group that does not work, does not have social security, and has less income than expenditure (Obrochta et al. 2020, Alshikh Ahmad et al. 2021). Some of the needs a woman faces after giving birth to her baby may cause her to experience more helplessness. However, the fact that women with an elevated level of education have a more significant impact on their lives will contribute to effective coping with postpartum difficulties. In studies conducted in Türkiye, it is known that factors such as low income and lack of social support pose a risk in terms of health and are associated with some mental and physical problems (Danacı et al. 2002, Inandı et al. 2005, Şentürk 2008). It is crucial for the health of the mother and baby that this group is closely followed by the health professionals who cooperate with the spouse, family, and immediate environment with social support systems.

Table 2. Mean Scale Scores of Mothers in the Postpartum Period (N=264)

Scale	**X±SD**
GHQ-28	5.70±5.44
Mental health level is normal (<5) * Mental health level risk (>5)	139 (52.7) 125 (47.3)
Social support scale	51.95±15.66
IBL (Family) Sub-Dimension	22.45±6.39
SBL (Friend) Sub-Dimension	16.82±7.76
SBL (Special Human) Sub-Dimension	12.67±7.12

*n (%), GHQ-28: General Health Questionnaire, SDS: Multidimensional Scale of Perceived Social Support

Table 3. The Relationship Between Postpartum Mothers' GHQ-28 and Social Support (N=264)

Scales	**GHQ -28**	
	r	***p***
Social support scale	-0.259	<0.01
IBL (Family) Sub-Dimension	-0.275	<0.01
SBL (Friend) Sub-Dimension	-0.155	<0.05
SBL (Special Human) Sub-Dimension	-0.155	<0.05

r: Pearson Correlation analysis, GHQ-28: General Health Questionnaire, SDS: Multidimensional Scale of Perceived Social Support

Table 4. Distribution of GHQ-28 and SDS Scores of Postpartum Mothers by Descriptive Characteristics (N=264)		
Introductory Features	**GHQ-28** **X ± SD**	**SDS** **X ± SD**
Age 16 – 25 26 – 35 36 - 45	4.42±4.80b 6.34±5.70a 10.50±4.80c F=15.364 p<0.01	50.30±15.39 51.71±16.34 56.83±13.96 F=1.302 p>0.05
Level of education None Primary school Middle School High school University	11.52±5.02a 5.92±4.02ab 3.91±4.72b 7.75±7.56a 3.2±5.44ab F=12.856 p<0.01	44.57±15.16a 50.52±12.53a 49.74±15.84ab 56.05±17.46b 70.80±15.66b F=11.305 p<0.01
Working Status Working Not working	6.17±7.79 5.64±5.11 t=0.487 p>0.05	53.78±22.02 51.74±14.77 t=0.652 p>0.05
Social security There is None	5.75±5.65 5.55±4.84 t=0.264 p>0.05	52.75±15.89 46.75±14.89 t=1.374 p>0.05
Financial situation Income less than expenses Equivalent to income and expense Income more than expenses	6.36±6.16 5.08±4.10 7.30±9.21 F=2.551 p>0.05	46.60±15.88a 54.68±13.58b 51.95±15.66b F=9.007 p<0.01
Chronic Disease There is None	8.10±3.41 5.61±5.48 t=1.422 p>0.05	48.30±17.26 52.10±15.61 t=-0.752 p>0.05
Smoking There is None	7.83±6.06 5.43±5.30 t=2.294 p<0.05	49.23±16.28 52.30±15.58 t=-1.012 p>0.05
Family Shape Core Wide Broken-up	5.66±5.28 5.73±5.63 6.00±7.07 F=0.008 p>0.05	53.02±15.48 51.12±15.75 31.50±6.36 F=2.222 p>0.05
Family Relationship Very good Good Normal Bad	3.55±4.96a 6.59±4.65b 10.65±6.36ac 9.50±9.19a F=6.171 p<0.01	53.94±17.54 52.04±12.61 44.07±17.74 35.50±0.70 F=1.714 p>0.13
Friend Relationship Very good Good Normal Bad	4.74±5.80a 6.20±4.90ab 6.06±5.39ab 13.00±5.47b F=4.019 p<0.05	54.59±17.45 51.24±14.39 47.25±12.36 41.50±16.01 F=1.165 p<0.05
Number of children A child Two kids Three children and up	5.13±5.18 6.14±5.60 6.05±4.68 F=0.992 p>0.05	53.89±14.18 49.15±17.06 51.95±15.66 F=1.950 p>0.05
Abortion There is None	5.66±5.02 8.46±7.64 9.22±8.49 F=3.647 p<0.05	51.68±16.05 45.75±17.48 40.44±21.78 F=2.694 p>0.05
Desired Status of Pregnancy Yes No It doesn't matter	 8.77±5.79 5.21±5.23 t=3.735 p<0.01	 48.86±13.50 52.44±15.94 t=-1.278 p>0.05

Tablo 4. Continued		
Tanıtıcı Özellikler	**GSA-28** **X± SD**	**SDÖ** **X± SD**
Having Psychological Problems Before Yes No	5.78±5.32 5.56±5.66 t=0.312 p>0.05	54.68±15.88 47.02±14.02 t=3.991 p<0.01
Availability of Helper for Baby and Self Care There is None	5.78±5.32 5.56±5.66 t=0.312 p>0.05	54.68±15.88 47.02±14.02 t=3.991 p<0.01
F: One way annova test, t: Independent sample test, GHQ-28: General Health Questionnaire, SDS: Multidimensional Scale of Perceived Social Support		

In this study, a negative and significant relationship was determined between the GHQ-28 scale scores of the mothers and the social support scores of the SDS and its sub-dimensions perceived by family, friends, and people. In other words, as social support decreases, there is a decrease in the level of perceived mental well-being. These results, similar to the literature, show that insufficient social support makes it difficult for women to adapt to the postpartum period and cope with the problems they experience (Bay 2015, Yücel 2018, Pınar and Polat, 2019). Zhou et al. (2021) found that the virtual social support provided to mothers by family and friends in the postpartum period highly affects perceived social support. Virtual support systems can increase social support and reduce loneliness, and sharing can be ensured by focusing on peer support models.

It is estimated that psychological problems will be one of the three causes of death globally by 2030 (Mathers and Loncar 2006). Therefore, psychological issues are one of the primary problems that should be addressed independently of cultural identity and beliefs (Evagorou et al. 2016). Approximately half of the women who have psychological problems in the postpartum period may also face this problem in their successive pregnancies (Hodo 2006). The social support received in the postpartum period has a prominent place both in the reinforcement of the sense and role of motherhood and in the healthy development of the newborn. In this direction, health professionals; It is vital to evaluate mothers in terms of social support after birth, to deal with their psycho-social health, and to follow women at risk in the postpartum period in the hospital, in the health institutions they are affiliated with, and in their home environments after discharge. For this reason, studies should be conducted to ensure the continuity of the emotional, cognitive, and baby-care material support given by the nurses in the postpartum period.

Conclusion

In conclusion, the inadequacy of social support, low education level, advanced age, smoking, unwanted/unstable pregnancies, and previous psychological distress are the factors that decrease the perceived mental well-being of mothers. In addition, bad friendships with mothers, low education and socioeconomic level, and perception of social support decrease. Improving the social support perceptions of postpartum women during the pandemic process can prevent mental health problems that may occur in the postpartum period. For this, it is vital to identify at-risk groups. The physical and psychological well-being of women and their babies at risk and with low social support should be routinely monitored. Health personnel should be aware of psychological problems while caring for mothers and provide appropriate guidance. It is thought that the results obtained from our study will guide future studies and health policies.

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