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## ORIGINAL RESEARCH



## RELATIONSHIP BETWEEN STRESS WITH GASTRITIS IN THE REGION OF PUBLIC HEALTH SERVICE JATIREJO DISTRICT MOJOKERTO

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## ABSTRACT Keywords

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Gastritis is one of the most common problems of the digestive tract and increases annually. Gastritis is a pain that is not caused by disorders of the stomach organs but more often triggered by psychological stress factors. Stomach acid production will increase in stressful situations, e.g., in heavy workloads, panic, and haste. Increased stomach acid levels can irritate the gastric mucosa. The purpose of the research was to determine the relationship of stress with a recurrence of gastritis in the area of public health service jatirejo. Design of an analytic survey study used a cohort design. The population was of all gastritis patients at public health service of jatirejo with purposive sampling technique. The instrument used to measure stress was a questionnaire while the observation sheet used to measure the recurrence of gastritis. Results showed that most respondents had moderate stress level as many as 16 respondents and experienced recurrence as many as 13 respondents (81.2%). This is caused by people who are vulnerable to stress because the more vulnerable a person exposed to stress the higher the risk of gastritis

Stress,

Gastritis,

Gastritis

Recurrence

#### INTRODUCTION

Gastritis is one of the most common problems of the digestive tract and increases annually. Gastritis is often considered a mild disease but can cause complications, and it is estimated that almost all patients with gastritis experience relapse. Gastritis is a pain that is not caused by disturbances in the stomach organs but more often triggered by psychological stress factors, inappropriate diet, alcohol, anti-inflammatory drugs, anxiety, and others (Saydam, 2011 in danang 2015). Psychological or emotional

factors, such as stress and anxiety, affect the gastrointestinal system in some people. Stress provides a manifestation of anorexia, pain in the stomach (Muttaqin, 2011). Indonesia (2012) the incidence of gastritis is quite high with the prevalence of 274,396 cases of 238,452,952 inhabitants. Ministry of Health stated that the incidence of gastritis in some cities in Indonesia in 2012 is high reaching 91.6% in the city of Medan, in some cities such as Surabaya 31.2%, Denpasar 46%, Jakarta 50%, Bandung 32.5% Palembang 35.35%, Aceh 31.7%,

and Pontianak 31.2%. (Indonesia health profile, 2012)

The results of Rahmawati (2011) at Lamongan Public Health Center showed that there was correlation between psychological stress and gastritis recurrence with a prevalence ratio of 2.19 for respondents who were very susceptible to psychological stress and prevalence ratio of 2.83 for the respondents who are susceptible to psychological stress. The results of Rismayanti's research (2013) in Public health service of Gowa found that 47% of the major causes of gastritis disease are irregular diet, 28% caused by stress, 12% due to alcohol consumption, 8% caused by smoking habit, 5% caused by the use of steroidal anti-inflammatory drugs.

Data obtained from Mojokerto district health office found that the number of gastritis incidents from January 2015 to December 2015 at 17 Public health service located in the Mojokerto regency was 2556 cases. Data of gastritis patients obtained in Jatirejo Community Health Center from January 2015 to December 2015 were 997 cases. Based on a preliminary study conducted at Public health service of Jatirejo on 9-10 January 2016 by conducting interviews on ten patients that 7 out of 10 patients who came to the Public health service of Jatirejo said that the recurrence of maagh sickness is felt because of too much thinking about the problem of life that happened. These complaints arise or recur 2-4 times a month and based on medical visits or records, three patients come to the public health service of with the same complaints and illnesses 3 times a month, 4 patients twice a month and patients 4 times month. Gastritis can be caused by several factors. Causes of gastritis include irritation, infection, and gastric mucosal atrophy. Where the factors start from factors stress, alcohol, drugs such as NSAID and others. Common symptoms that occur in people with gastritis is pain chest, pain in the upper left abdomen, nausea, vomiting, bloating, stomach feels full. These symptoms usually become acute, continuous or chronic because one of them influenced by psychological factors or stress (Misnadiarly, 2009).

Stress is a non-specific body response to disturbed body needs. Stress is a universal phenomenon that occurs in everyday life and is unavoidable and will be experienced by everyone. Stress gives a total impact on individuals such as physical, intellectual, psychological, and spiritual social impacts (Pathmanathan and Husada, 2013). Stomach acid production will increase in stressful situations, such as on heavy workload, panic, and haste. Increased levels of stomach acid can irritate the gastric mucosa and if this is allowed, over time can lead to gastritis. For some, the general stress situation cannot be avoided (saorinsong, 2014). When a person is in a state of stress will occur stimulation of the sympathetic nervous Vagus that will increase the production of hydrochloric acid (HCl) in the stomach. Excessive HCl in the stomach will cause nausea, vomiting and anorexia (price, 2006 in Neni 2014).

## **METHOD**

The research method used analytic survey research using cohort design. The samples were patients of Jatirejo public health service numbering 35 people with purposive technique. The independent sampling variable was stress in gastritis patients treated in the public health service of jatirejo district Mojokerto regency using the questionnaire (DASS 42) and the dependent variable was recurrence in gastritis patients treated in the jatirejo mojokerto public health service by using medical records and observation sheets.

# RESULTS AND DISCUSSION RESULTS

1.The stress level of gastritis patients. Frequency distribution of respondents based on stress level in gastritis patients in public health service of jatirejo district mojokerto district on 28 March - 29 April 2016

No	Working	Frequency	Percentage
	stress		(%)
1.	Normal	11	31,4
2.	Mild	5	14,3
3.	Medium	16	45,7
4.	Hard	3	8,6
5	Heavy	0	0
	Total	35	100

Based on table 1 shows that half of the respondents have moderate stress level as many as 16 respondents (45.7%).

1. Recurrence of Gastritis Frequency distribution of respondents based on recurrence in gastritis patients in public health service of jatirejo district mojokerto district on 28 March - 29 April 2016

No	Recurrence of Gastritis	Frequency	Percentage (%)
1.	Recurrence	20	57,1
2.	Not relapse	15	42,9
	Total	35	100

Based on table 2 shows that most respondents experienced a relapse of as many as 20 respondents (57.1%).

1. Analysis of stress relationships with recurrence of gastritis in Jatirejo District Health Center Mojokerto regency

Cross-tabulation of stress relation with gastritis recurrence in Jatirejo Health Center Region Mojokertotdanggal District March 28 - April 29, 2016

No	Stress	Rela	Relapse of Gastritis				Total	
		Relapse		Not	Not relapse			
		f	%	f	%	F	%	
1	Normal	2	18,2	9	81,8	11	100	
2	Mild	2	40,0	3	60,0	5	100	
3	Medium	13	81,8	3	18,7	16	100	
4	Hard	3	100	0	0	3	100	
Tota	1	20	57,1	15	42,9	35	100	

Based on table 3 shows that half of the respondents have a moderate stress level that is as many as 16 respondents and recurred as many as 13 respondents (81.2%). 11 of the respondents showed stress at normal levels and most did not experience relapse as much as 9 respondents (81.8%), 5 respondents were at the mild level and did not experience recurrence (60%).

#### **DISCUSSION**

Source of occurrence of stress that is from some other factors such as biologic conditions such as various infectious diseases, trauma with biological organ damage, physical fatigue, chaos continued biologic function, psychological condition, socio-cultural condition (Lukluk, 2011).

It shows that half of the respondents aged 36-45 years as many as 19 respondents (54.3%). At the productive age often faced with challenges, if not able to manage it can potentially experience stress (Aminullah, 2008). A person's past experience in dealing with stress can be a provision in the face of subsequent stress as individuals have better adaptability / coping mechanisms. According to Lukluk (2011)

This indicates that at that age is a productive age range in working with too much work pressure. The more a person's age, the maturity level of a person will be more mature in thinking and work. The number of tasks that are given if not in accordance with the ability and time owned by the respondent will require respondents to

always complete the task given although not in accordance with the ability possessed so that respondents experience stress.

Most of the respondents are female as 22 respondents (62.9%). Women are at 40% more likely to experience psychiatric disorders, where women are susceptible to panic disorders, phobias, insomnia, post-traumatic stress disorder, and eating disorders, in addition to biological and environmental aspects (Anna, 2013).

Women are more susceptible to stress because things can cause emotional stress on them, from work, life problems, nanny to appearance.

Half of the respondents worked as factory workers as many as 17 respondents (48.6%). Mid to high-level stress is found in shift workers, where stress is more prevalent in workers exposed to noise than those not exposed, other symptoms are withdrawing from the social environment of the workplace, overreacting to small things, complaints from coworkers (Naution and Adi, 2011)

The presence of tasks that are too much and not comparable with both physical ability and time owned respondents will cause the respondents experience physical fatigue and trigger the occurrence of stress. The condition of respondents who work shift (shift) can make respondents do not have free time to relax, because the time he has not regular.

Based on table 2 shows that most respondents experienced a relapse of as many as 20 respondents (57.1%). Recurrence of gastritis is the re-emergence of symptoms that are felt as pain, especially in the pit of the stomach, people affected by this disease is usually often nausea,

vomiting, stomach feels bloated and lack of appetite. Gastritis sufferers commonly suffer from the gastrointestinal tract in the form of appetite, decreased abdominal bloating, and sometimes nausea. vomiting (Saroinsong, 2014). Naturally the stomach will continue to produce stomach acid every time in small quantities, the stomach acid produced more and more so that it can irritate the gastric mucosa and cause pain around the epigastrium.

If someone who has suffered from gastritis has a habit of thinking and eventually someone will experience stress, because the production of stomach acid will increase in stressful conditions, for example in heavy workloads, panic, and haste. Increased levels of stomach acid can irritate the gastric mucosa and if this is allowed, over time can lead to recurrence of gastritis.

Based on the age that half of the respondents aged 36-45 years ie as many as 19 respondents (54.3%). Gastritis disease can strike from all levels of age and sex, surveys show that gastritis most often attacks productive ages (Hartati, 2014). This means that respondents are in the range of productive age, that is productive in work. At that age vulnerable to symptoms of gastritis because of the level of busyness and lifestyle that is less attention to health and stress that occurs easily due to the influence of environmental factors.

Based on table 3 shows that half of the respondents have a moderate stress level that is as many as 16 respondents and recurred as many as 13 respondents (81.2%).

The results of this study are comparable with the results of Rahmawati's (2011) study that there is a relationship between

psychological stress with gastritis recurrence with a prevalence ratio of 2.19 for respondents who are very susceptible to psychological stress and prevalence ratio 2.83 for psychologically susceptible stress responders. The same is also expressed by Atmaja (2011) in his research also shows that there is a relationship stress on the recurrence of gastritis. Handayani (2012) in his research stated that gastritis disease is one of psychosomatic illness which one of the causes is stress. Stress experienced by gastritis patients can arise from the work environment.

Stomach acid production will increase in stressful situations, eg in heavy workloads, panic and haste. Increased levels of stomach acid can irritate the gastric mucosa and if this is allowed to gradually lead to recurrence of gastritis. (Ardiansyah, 2012). When a person in a state of stress will occur stimulation of the sympathetic nervous Vagus that will increase the production of hydrochloric acid (HCl) in the stomach. Excessive HCl in the stomach will cause nausea, vomiting and anorexia (price, 2006).

Asit has known that the most common causes of gastritis are psychological factors such as stress and anxiety can affect the function of the gastrointestinal system in some people. Stress provides manifestations of anorexia, abdominal and abdominal pain. This condition not only can cause gastritis, but also can trigger a recurrence of gastritis disease.

## **CONCLUSION**

Based on cross-tabulation (crosstab) in getting result that most of the respondent have medium stress level counted 16 respondent and experiencing recurrence counted 13 respondent (81,2%) so it can be

concluded that higher and more often someone experiencing stress eat more vulnerable also someone experience recurrence.

#### **SUGGESTION**

For health workers

Health workers should provide counseling to patients who have gastritis to be able to reduce stress levels in order to avoid recurrence and develop health services, especially in terms of handling patients gastritis

## For respondent

Increase knowledge about what factors can cause gastritis and how to cope with stress in order to avoid a recurrence by adding information.

## For further research

For the next researcher can develop research on how to manage stress well so that the stress experienced by the respondents did not appear again or further researchers can examine about other factors associated with recurrence of gastritis.

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