

Original Research Article

The Effect of His Majesty King Bhumibol Adulyadej's Passing Away on Mental Health of University Students in Northern Thailand

Lakkana Thaikruea^{1*} and Wuthichai Chairinkam

Abstract

¹Community Medicine Department,
Faculty of Medicine, Chiang Mai
University, Thailand

²Office of the President, Phayao
University, Thailand

*Corresponding Author's E-Mail:
lakkana.t@cmu.ac.th
Tel: 66-53-9435472 to 4
Fax: 66-53-9435476
Mob. Phone: 66-8-69204243

Majesty King Bhumibol Adulyadej (HMKB) had the longest reign in the world (from the 9th of June 1946 until the 13th of October 2016). Thai people have such tremendous love and attachment to HMKB, who was the only king most citizens in Thailand had ever known. HMKB's passing away on October 13, 2016 was a tremendously special incident. Mental health assessment and appropriate interventions are needed. This study aimed to investigate the effect of HMKB's death on the mental health of students at Phayao University in Northern Thailand. A cross-sectional cohort study was conducted within one month of HMKB's passing. Each participant completed a self-administered questionnaire about the effect of HMKB's passing on his/her mental health in addition to assessments of anxiety and depression. 97.03% of 1500 students reported that the incident affected their mental health (with 27.18% reporting high effect). The effects of HMKB's passing were statistically significantly associated with depression (p-value = 0.042) and with anxiety (p-value < 0.001). The students with a high effect were 1.63 times (95% CL: 1.00, 2.76) more likely to have depression than students who reported no effect. Appropriate psychological interventions for large numbers of affected students through limited counseling is needed.

Keywords: King, Effect, Mental Health, University, Student, Depression, Anxiety, Thailand

Abbreviation: HMKB: His Majesty King Bhumibol Adulyadej

INTRODUCTION

His Majesty King Bhumibol Adulyadej (HMKB) was the ninth King of the Chakri Dynasty who ascended to the throne on June 9, 1946. He implemented more than 4,000 royal initiative projects with a wide range, from farm irrigation to public health, to distant services, according to (Nations 2016). Thai and others living in Thailand highly adored HMKB, and that was expressed with the popular phrases "We Love the King" and "People's King". (Audjarint 2016; Food and Agriculture Organization of the

United Nations; United Nations 2016; Phuphaibul et al., 2013; Teeru, 2016). HMKB was well known both at national and international levels, particularly his 'Sufficiency Economy Philosophy'. The UN General Assembly designated December 5th (HMKB's birthday) as 'World Soil Day'. (Food and Agriculture Organization of the United Nations, 2005). Other numerous recognitions of HMKB from international organizations included the Agricola Medal from the Food and Agriculture Organiza-

tion (1995), the first recipient of the UN Human Development Lifetime Achievement Award (2006), and the Global Leaders Award from the World Intellectual Property Organization (2009). (Audjarint 2016; Nations, 2006)

In early 2016, Thai people celebrated the seventieth year of HMKB's accession to the throne. People in all provinces were concerned about the King's health, particularly in the last two years. Government and people from various nationalities had participated in many activities that were dedicated to HMKB's recovery. The activities expanded into all societies, including social media. Huge numbers of Thai social media users changed their account profile images and banners to pink with the message of love and good will for HMKB. HMKB was the world's longest-reigning monarch. (Fredrickson, 2016). Thus, people had such tremendous love and attachment to HMKB, who was the only king most Thai people had ever known. On October 13, 2016, HMKB passed away. The first time that the UN Assembly paid tribute to HMKB was in the meeting on Oct 28, 2016. (United Nations, 2016). The government set a mourning period of one year. (Fredrickson, 2016). Thai people and others living in Thailand have been mourning ever since. (British Broadcasting Corporation News, 2016). All mass media have added HMKB's condolences and changed the color into black, including social media. The major users of social media in Thailand are teenagers and young adults. Besides communication, they also express their identity and identity markers of emerging adulthood. (Kaplan and Haenlein, 2010; Pempek et al., 2009). One of the main contents has been about HMKB's passing away. A study that involved in medical students at the Lebanese University, who used Facebook as an intrinsic part in their lives, showed a 34.4% prevalence of depression. A study among students from Wisconsin University found that 25% of profiles displayed depressive symptoms and students who received online reinforcement from their friends were more likely to discuss their symptoms on Facebook. (Moreno et al., 2011). The prevalence of depression among health science-related students are varied. A study among medical students in Sweden found that the prevalence of depressive symptoms was 12.9%, which was higher than the general population. The prevalence rate among female students was higher than that of male students. (Dahlin et al., 2005). This prevalence varied by gender and academic years. (Naja et al., 2016). HMKB's passing away was a very special incident in Thailand. It has led to tremendous mourning all over the country. The Ministry of Public Health is concerned about the mental health effect and is providing counseling services for the general population. However, the effect of HMKB's passing on the mental health of university students and a magnitude of the effect are unknown. This study aimed to investigate the effect of HMKB's passing on the mental health of students from health science-related faculties of Phayao University in Northern Thailand. The results

will provide useful information for appropriate interventions.

MATERIAL AND METHODS

A cross-sectional cohort study was conducted between October 24 and November 14, 2016 (within one month of HMKB's passing away) among 6,480 students from faculties of health science of Phayao University, Phayao Province, Northern Thailand. The numbers of sample were proportional to the number of students studying in each faculty and to the numbers of students studying in each year. In each year, simple random sampling was performed to draw samples. One thousand five hundred students participated in the study. They were from faculties of Medicine (760), Pharmacology (222), Nursing (46), Allied Health Sciences (106), and Medical Sciences (366). Each participant completed a self-administered questionnaire regarding the effect of HMKB's passing away on his/her mental state. The anxiety assessment tool utilized was the *Strait Trait Anxiety Inventory* (STAI). This tool was translated into Thai language and has been accepted for survey in Thailand. A student with a STAI score of at least 40 was defined as having acute anxiety. (Julian, 2011; Spielberg, 1983, 2010; Thapinta, 1992). The depression assessment tool was *Primary Care Evaluation of Mental Disorder, Patient Questionnaire* which has been accepted and used for screening by the Ministry of Public Health. A student with an affirmative answer to either of these two questions was defined as having depression: 1) Have you been feeling down, depressed, or hopeless in the past two weeks (include today)? 2) Have you had little interest or pleasure in doing things in the past two weeks (include today)? (Arunpongpaissal et al. 2009; Mitchell and Coyne 2007; Whooley et al. 1997). All methods were carried out in accordance with relevant guidelines and regulations. All experimental protocols were approved by the Ethics Committee of the Faculty of Medicine, CMU. Informed consent was obtained from all subjects. Statistical Analysis was conducted by using STATA version 11 (Statacorp LP. College Station, TX).

RESULTS

Demographics

His Majesty King Bhumibol Adulyadej passed away on October 13, 2016. The study was conducted between October 25 and November 14, 2016. Fifteen hundred university students participated in the study. The majority of them were women (85.53%). They were studying in the first year (32.20%), second year (38.53%), and third year (29.27%).

Table 1. The effect of HMKB's Passing Away on Mental Health of University Students

Effect	Frequency	Percent	95% Confidence Limits	
			Lower	Upper
No	45	3.00%	2.25%	3.99%
Mild	1043	69.53%	67.16%	71.81%
High	412	27.47%	25.27%	29.78%
Total	1500	100.00%		

Table 2. Characteristics of University Students and the Effect of HMKB's Passing Away on their Mental Health

	Effect				P-Value*
	No	Mild	High	Total	
Gender					
Men	10	153	54	217	0.242
Row %	4.60	70.50	24.90	100.00%	
Women	35	890	358	1283	0.023
Row %	2.70	69.40	27.90	100.00	
Total	45	1043	412	1500	100.00%
Row %	3.00	69.50	27.50	100.00%	
Faculty					
Medicine	17	503	240	760	0.023
Row %	2.24%	66.18%	31.58%	100.00%	
Pharmacology	12	162	48	222	100.00%
Row %	5.41%	72.97%	21.62%	100.00%	
Nurse	1	32	13	46	100.00%
Row %	2.17%	69.57%	28.26%	100.00%	
Allied Health Sciences	1	71	34	106	100.00%
Row %	0.94%	66.98%	32.08%	100.00%	
Medical Sciences	14	275	77	366	100.00%
Row %	3.83%	75.14%	21.04%	100.00%	
Year					
First	18	364	101	483	0.024
Row %	3.70	75.40	20.90	100.00	
Second	14	394	170	578	100.00
Row %	2.40	68.20	29.40	100.00	
Third	13	285	141	439	100.00
Row %	3.00	64.90	32.10	100.00	
Total	45	1043	412	1500	100.00
Row %	3.00	69.50	27.50	100.00	

*P-value: Gender = Chi square; Faculty and Year = Kendall's tau-b; p-value equal or less than 0.05 is considered statistically significant

Effect of HMKB's Passing Away

Almost all university students (97.03%) reported that the HMKB's passing affected their mental health. About 27.18% of them reported a high effect level (Table 1).

The effects on mental health were statistically different by faculty and year. The university students who study in the Faculty of Medicine and Faculty of Allied Health Sciences had high percentages of high mental effect level. The university students who study in the second and third

year had high percentages of high mental effect level (Table 2).

Prevalence of Depression and Anxiety Among University Students

Among 1500 university students, 60.00% had depression and/or anxiety (95% CL: 57.50%, 62.45%). Depression and anxiety were present in 35.53% and 49.07% of the

Table 3. Depression and Anxiety Prevalence among University Students after HMKB Passed Away

Mental Health	Frequency	Percent	95% Confident Limits	
Depression				
Yes	533	35.53%	33.15%	37.99%
No	967	64.47%	62.01%	66.85%
Total	1500	100.00%		
Anxiety				
Yes	736	49.07%	46.54%	51.60%
No	764	50.93%	48.40%	53.46%
Total	1500	100.00%		
Depression and Anxiety				
Depression with Anxiety	369	24.60%	22.49%	26.84%
Depression without Anxiety	164	10.93%	9.45%	12.61%
Anxiety without Depression	367	24.47%	22.36%	26.71%
Without Depression/Anxiety	600	40.00%	37.55%	42.50%
Total	1500	100.00%		

Table 4. Associations between Effects of HMKB's Passing away and Depression and Anxiety among University Students

Effect of HMKB's Passing Away	Mental Health			RR	95% Confidence Limits	
	Yes	No	Total		Lower	Upper
Depression and/or Anxiety						
High	282	130	412	1.28*	1.00	1.70
Row %	68.45%	31.55%	100.00%			
No	24	21	45			
Row %	53.33%	46.67%	100.00%			
Total	306	151	457			
Row %	66.96%	33.04%	100.00%			
Depression						
High	164	248	412	1.63*	1.00	2.76
Row %	39.81%	60.19%	100.00%			
No	11	34	45			
Row %	24.44%	75.56%	100.00%			
Total	175	282	457			
Row %	38.29%	61.71%	100.00%			
Anxiety						
High	242	170	412	1.20	0.88	1.64
Row %	58.74%	41.26%	100.00%			
No	22	23	45			
Row %	48.89%	51.11%	100.00%			
Total	264	193	457			
Row %	57.77%	42.23%	100.00%			

*P-value equal or less than 0.05 is considered statistically significant

students, respectively (Table 3). About a quarter of them had both depression and anxiety (Table 3).

Effect of HMKB's Passing away on Mental Health

The effects of HMKB's passing (no, mild, and high) were statistically significantly associated with depression (p -value = 0.042) and with anxiety (p -value < 0.001).

When comparing students who had a high effect of HMKB's passing on their mental health to students who had no effect, the students who reported high effect were statistically significant (1.20 times more likely) to have depression and/or anxiety than those who reported no effect (Table 4). The students with a high effect were 1.63 times more likely to have depression than the group having no effect, while the association with anxiety was not statistically significant (Table 4).

DISCUSSION

This study found that almost all university students reported that the HMKB's passing affected their mental health. One third of them reported high effect level. The prevalence of depression and anxiety were high. The depression prevalence was higher than those of medical students in universities in Lebanon (34.40%), Sweden (12.90%), Malaysia (1.90%) (Chantakarn, 2014; Dahlin et al., 2005; Kongsomboon, 2010; Naja et al., 2016; Shamsuddin et al., 2013). This high prevalence cannot be totally explained by other factors that caused depression such as academic performance, adaptation, and health. (Kongsomboon, 2010; Saipanish, 2003; Yusoff et al., 2013). The passing of His Majesty King Bhumibol Adulyadej in Thailand was a very special incident, which affected the mental health of Thai people. (British Broadcasting Corporation News, 2016)_Thai people and others living in Thailand have been mourning since HMKB passed away. (British Broadcasting Corporation News, 2016). Three main reasons for the effect on mental health were that HMKB had been a part of people's lives, was considered as a family member (father), and people just happily celebrated the seventieth year of his accession to the throne in early 2016. (British Broadcasting Corporation News, 2016; United Nations, 2006). For being part of people's lives, HMKB's pictures were present everywhere in Thailand, including homes, restaurants, offices, schools, universities, hospitals, etc. Mass media has covered devoted activities that HMKB and royal families participated in for the well-being of Thai people, including daily television broadcasting on the primetime. All theaters play the national anthem before movies and performances began. HMKB's ethical governance and sacrifice made

him widely beloved and revered by Thai people and highly respected internationally, which has been expressed as the popular phrases "We Love the King" and "People's King". (British Broadcasting Corporation News, 2016; United Nations, 2006). They treated HMKB as their father, which is expressed as the popular phrase "Phaw Luang" (Phaw means father and Luang means great/big). For seventy years HMKB, who had the longest reign in the world, demonstrated the utmost dedication to Thai people and all nationalities. (Audjarint, 2016; United Nations, 2016; Phuphaibul et al., 2013; Teeru, 2016). People had clung to HMKB, who was the only king most Thai people have ever known. (Audjarint, 2016; British Broadcasting Corporation News, 2016; Rodhetbhai, 2014). For celebration of the seventieth year of his accession to the throne a few months ago, both government and people participated in many activities related to HMKB's recovery. The activities expanded into all societies, including social networks. Huge numbers of social media users had changed their account profile images and banners to pink color with the message of love and good will for HMKB ("Love the King" and "Long Live the King"). (Fredrickson, 2016). Thus, people experienced such a tremendous loss when HMKB passed away just a few months after the celebration. The government has set a mourning period of one year. (British Broadcasting Corporation News, 2016; Fredrickson, 2016). Government officers, private sectors, and general population dressed in black color. The demand was tremendous and caused black shirts to be in short supply. (Prachachat Online Business, 2016; Thai PBS News, 2016). Another event that may have increased the effect of HMKB's passing away on mental health is that all mass media have added HMKB's condolences and changed the color of the contents into black color, including social media. Documentary films about HMKB have been broadcasting since he died regarding his investment in Thai people. This sorrowful atmosphere makes Thailand in deep mourning and may have increased the effect of HMKB's passing on mental health.

This study also found that the students who had a high effect were statistically significantly more likely to have depression than those who reported no effect, while anxiety was not statistically significant. This is different from that of Malaysian university students, where anxiety prevalence was higher than depression. (Yusoff et al., 2013). This special incident made people sad or depressed rather than anxious. Other studies found that women had higher depression and anxiety than men. (Dahlin et al., 2005; Yusoff et al., 2013). However, this study showed no gender difference. One possible explanation was that this tragic incident is a once in a lifetime experience for both genders and the tremendous loss can affect both genders.

A limitation of our study was the nature of the cross-sectional cohort study design. However, HMKB's passing

was a special tragic event that occurs once in a life time. Furthermore, we conducted the study within one month after the incident. Recall bias was minimized. For this situation, the quick survey was needed for further recommendation of appropriate interventions. Thus, the cross-sectional cohort study design was suitable. (Hudson et al., 2005) The strength of this study was a large sample size that was representative of study population.

The researchers notified the Student Affairs staffs about the findings. Due to the high prevalence and limited staff (one counseling psychologist), personal counseling cannot be done for all students with depression and/or anxiety. Other interventions that may be appropriate for young adult such as music therapy or biannual beat therapy may be another potential option for students with mild or moderate depression and/or anxiety. Further studies need to be done to prove whether these interventions were effective.

CONCLUSION

HMKB's passing away affected the mental health of most university students. The students with a high effect were more likely to have depression than those who reported no effect. Appropriate interventions for large numbers of affected students through professional counseling staff is needed.

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