Effects of aggressiveness and waiting time on waiting behavior

待ち行動に及ぼす攻撃性と待ち時間の効果

Takashi Mitsutomi

光富　隆

　　　　本研究は人格特性としての攻撃性と状況要因としての待ち時間の交互作用効果 (Mitsutomi, 2022) を確認し、待ち行動に関する結果は予想されたフラストレーション強度という観点から説明することができるかどうかを検討することであった。青年女子が本研究に参加した。安藤ら（1999）によって考案された Buss-Perry 攻撃性尺度の日本語バージョンと Mitsutomi (2022) の待ち行動質問紙が実施された。結果は攻撃性（短気）と待ち時間の交互作用効果（Mitsutomi, 2022）を確認した。しかしながら、我々は待ち行動の結果を予想されたフラストレーション強度という観点から説明することはできなかった。

キーワード：待ち行動、攻撃性、待ち時間、青年女子

　　　　This study aimed to confirm the interaction effect (Mitsutomi, 2022) between aggressiveness as a personality factor and waiting time as a situational factor, and to investigate whether the results regarding waiting behavior can be explained in terms of expected frustration strength. In this study, the Japanese version of the Buss–Perry Aggression scale devised by Ando, Soga, Yamasaki, Shimada, Utsuki, Oashi & Sakai (1999) and waiting questionnaire devised by Mitsutomi (2022) were administered. The female adolescents participated in this study. The results confirmed the interaction effect (Mitsutomi, 2022) between aggressiveness (irritability) and waiting time. However, we could not explain the results of waiting behavior in terms of expected frustration strength.

Key words: waiting behavior, aggressiveness, waiting time, female adolescents.

Unfortunately, it is impractical to translate one's desires, urges, and impulses immediately and directly into action. Often, the behaviors that would be most immediately gratifying are prohibited by a higher authority or society at large. Developing children must learn to wait for a reward that may be forthcoming, but often only after a delay. Therefore, delayed gratification is a key ability for people to develop (Funder, Block & Block, 1983).

Mischel (1966, 1974) conducted research on delayed gratification in which the experimenter presented children with a smaller immediate reward available immediately (ImR) and a larger delayed reward available later (DelR), and then had them choose the one they preferred. When the child selected the DelR, he or she was considered to have chosen to delay immediate gratification, indicating that the choice of a delayed reward was positively related to social responsibility (Mischel, 1961a), intelligence and achievement motivation (Mischel, 1961b), accuracy in time estimation (Mischel & Metzner, 1972), and future time perspective (Klineberg, 1968).

The research described above was choice research. However, in addition to the choice research, Mischel (1974) also measured how long children could wait to attain DelR while resisting the temptation of ImR. Mischel (1981) identified waiting strategies that facilitate waiting behavior. The distraction strategy distracts from rewards through the performance of an overt or covert activity (Mischel & Ebbesen, 1970; Mischel, Ebbesen & Zeiss, 1972). The self-instruction strategy regulates behavior through verbal commands to the self (Miller, Weinstein, & Karnial, 1978; Toner, 1981; Tonner, Lewis, & Gribble, 1979; Toner & Smith, 1977). The cognitive transformation strategy cognitively transforms arousing, consummatory, hot reward ideation (e.g., the taste of the reward) into symbolic representation, i.e., cool ideation (Mischel & Baker, 1975; Mischel & Moore, 1980; Mischel & Moore, 1980; Moore & Mischel, 1976).

However, these studies have not sufficiently investigated the effect of situational factors on waiting behavior. To investigate the effects of situational factors on waiting behavior, a series of studies (Mitsutomi & Kobayashi, 2012; Mitsutomi & Kobayashi, 2014; Mitsutomi, Kobayashi, & Fukuhara, 2015) were conducted in which female university students waited for an object (person) in a variety of hypothetical situations. As a result, some situational factors were found to affect waiting behavior. First, regarding the intimacy condition, subjects had higher waiting scores when the degree of intimacy with the waiting object was higher, Second, regarding the waiting place, a bookshop condition, which was associated with a higher number of distractions, resulted in higher waiting scores than a park condition, which was associated with relatively fewer distractions. Third, regarding waiting time, a longer waiting time resulted in lower waiting scores.

Previous studies have primarily focused on situational factors. However, to investigate the ways in which personality factors interact with situational factors, it is necessary to examine not only situational factors, such as the level of intimacy with a waiting object, waiting place, and waiting time, but also personality factors that influence waiting behavior. Mitsutomi and Kobayashi (2016) investigated the interaction between aggressiveness as a personality factor and both waiting place and waiting time as situational factors. However, no interpretable interaction effect was found between the

situational and personality factors. We investigated the relationship between aggressiveness and both waiting place and waiting time using a hypothetical situation. To investigate the interaction between aggressiveness and both waiting place and waiting time, it is necessary to investigate this problem in actual waiting situations. However, it is difficult to set up an actual waiting situation in which to conduct research.

Therefore, Mitsutomi (2022) considered the following two points and approached the hypothetical waiting situation to the real situation. The first point is to add a picture to written waiting story (see Figs. 1–4 in Mitsutomi, 2022). The second point is to have the waiting subjects choose one from among five frustration sentiments and to have the waiting subjects say it to the person that let wait (see Fig. 4 in Mitsutomi, 2022).

Using the above procedures, Mitsutomi (2022) focused on aggressiveness as a personality factor and waiting time as a situational factor and investigated whether these factors influence waiting behavior. The results indicated significant interaction effects between irritability (aggressiveness) as personality factors and waiting time as a situational factor. In a 60-minute condition, the low (L) irritability group had higher waiting scores than the high (H) irritability group. However, no significant differences in waiting scores were found between the L and H irritability groups under 5- and 30-minute conditions.

The first purpose of the present study was to repeat the study of Mitsutomi (2022) and confirm the interaction between irritability (aggressiveness) as personality factors and waiting time as a situational factor. Mitsutomi (2022) measured the expected frustration strength before measuring waiting behavior, but did not analyze the expected frustration response. The second purpose of the present study was to analyze the expected frustration response and investigate whether it could explain the results regarding waiting behavior in terms of expected frustration strength. The expected frustration is to expect which degree of the frustration he or she experiences.

Frustration is important concept in investigating the delayed behavior. Mischel (1974) thought that the delayed situation was frustration situation. Then, he has investigated the development of delayed behavior in terms of acquisition and performance of the coping strategy, i.e., strategy to cope with the frustration efficiently. Thus, frustration is thought to be important concept in investigating the mechanism of delayed behavior. However, past research concerning the waiting treats the frustration as the psychological construct and do not measure it directly. Therefore, the present study measures the frustration. However, it is not actual frustration but expected frustration. We should investigate the actual frustration in the actual delayed situation. However, it might be difficult. Mitsutomi (2022) approached the hypothetical situation to the real situation. Therefore, the present study approached the hypothetical situation to the real situation on the basis of Mitsutomi (2022) and investigated relationship between the expected frustration and waiting behavior.

Method

The experiment featured a 2 × 3 factorial design. The first factor was the degree of aggressiveness and consisted of H and L aggressiveness groups. The second factor was waiting time and

consisted of the following three waiting times: 5, 30, and 60 minutes.

The Japanese version of the Buss–Perry Aggression Questionnaire (BPAQ), which was devised by Ando et al. (1999), was administered. The Japanese version of the BPAQ is composed of the following four subscales consisting of five, six, six, and five items, respectively: irritability, hostility, physical aggressiveness, and verbal aggressiveness. The waiting questionnaire shown in the supplement of Mitsutomi (2022), which is an example of the 5-minute condition, was also administered. For the 30- and 60-minute conditions, we changed the waiting time from 5 to 30 or 60 minutes. The 45 female adolescents (students) participated in this study.

Results

The participants were assigned to either the H or L group based on the median aggressiveness subscale scores. We had the waiting subjects choose the one among the five frustration sentiments and had the waiting subjects say it to the person that let wait (see Fig.4 of Mitsutomi, 2022). When subjects choose "not tired at all ", it is expected that frustration is weak. When subjects choose "tired a little" , it is expected that frustration is medium. Furthermore, when subjects choose "very tired", "shit, because you deprived of time" or "shit, because you had me wait", it is expected that frustration is strong.

In the 5-minute condition, the participants' responses were classified into one of three expected frustration categories for each group. Then, the number of responses in each category was calculated for each group in the 5-minute condition. The percentage of responses in each expected frustration category was calculated by dividing the number of responses in each category by the total number of responses for each group. The same procedure as that in the 5-minute condition was adopted in the 30- and 60-minute conditions. This procedure was performed for all four aggressiveness subscales.

Tables 1–4 show the percentage of responses for the expected frustration categories for each group under the three waiting time conditions. The results basically are as follows. In the 5-minute condition, the percentage of the expected weak frustration response was high (basically) for each group on the subscales (basically). In the 30-minute condition, the percentage of expected weak frustration response decrease (basically) and the percentage of the expected median and strong frustration response increase (basically) for each group on the subscales (basically). In the 60-minute condition, the percentage of the expected weak frustration response decrease (basically) and the percentage of expected strong frustration response increase (basically). Then, the percentage of the expected strong frustration response is high (basically) for each group on the subscales (basically).

Looking at the data in detail, in the 30-minute condition on the physical aggressiveness subscale, the expected frustration response was strong for the H group. On the other hand, the expected frustration response was weak for the L group. In the 30-minute condition on the verbal aggressiveness subscale, the expected frustration response was medium for the L group than for the H group and weak or strong for the H group than for the L group.

For all three waiting time conditions, we classified the waiting response when the expected frustration response was weak into one of the following three kinds for each group: "not

waiting", "not sure", or "waiting". Therefore, we divided the number of waiting responses by the total number of responses and calculated the percentage of all three kinds of waiting responses when the expected frustration response was weak for each group. This procedure was performed for all four aggressiveness subscales. We performed the same procedure for when the expected frustration responses were medium and strong.

Tables 5–16 show the relationship between the expected frustration response and waiting response for each group in three waiting time situations. In the 5-minute condition, the percentage of waiting responses was higher (basically) when the expected frustration was weaker. In the 30-minute condition, the expected frustration response was above the medium.

The percentage of waiting response + not sure response was higher (basically) when the expected frustration was medium. The percentage of not sure response+ not waiting response was higher (basically) when the expected frustration was strong. In the 60-minute condition, the percentage of not waiting response was higher (basically) when the expected frustration response was strong.

The waiting categories consisted of three responses: not waiting, not sure, or waiting. In the 5 minutes condition, response was classified into one of three waiting categories for each group. Then, the number of responses in each waiting categories was calculated for each group in 5-minute condition. The percentage of response in the waiting category was calculated by dividing the number of in the waiting category by the total number of responses for each group. The same procedure as that for the 5-minute condition was adopted for the 30- and 60-minute conditions. This procedure was performed for all four aggressiveness subscales.

Tables 17-20 show the percentage of responses in the "waiting" category for each group in all three waiting time conditions. The results basically are as follows. The 5-minute condition had a higher percentage (basically) of waiting responses for each group on the subscales (basically). In the 30-minute condition, the percentage of the waiting response decrease (basically) and the percentage of the not sure response increase (basically) for each group on the subscales (basically). In the 60-minute condition, the percentage of the waiting behavior and not sure response decrease (basically) and percentage of "not waiting" responses increase (basically) for each group on the subscales (basically). Then, the percentage of not waiting responses is high (basically).

Looking at the data in detail, in the 60-minute condition for the irritability subscale, the percentage of waiting responses was higher for the L group than for the H group, and the percentage of "not waiting" responses was higher for the H group than for the L group. In the 30-minute condition for the physical aggressiveness subscale, the percentage of "not sure" responses was higher for the L group than for the H group, and the percentage of "not waiting" responses was higher for the H group than for the L group.

Tables 21–24 show the mean waiting scores for each group under all three waiting time conditions. A 2 (each group) × 3 (waiting time) analysis of variance (ANOVA) was performed using waiting scores as the dependent variable. The main effect of waiting time was significant for all subscales (physical aggressiveness, $F=73.58$, $df=2/86$, $p<.01$; verbal aggressiveness, $F=71.42$, $df=2/86$, $p<.01$; hostility, $F=2/86$, $p<.01$; irritability, $F=73.08$, $df=2/86$, $p<.01$).

The 5-minute condition had higher waiting scores than did the other two conditions (physical aggressiveness, 30 minutes, t=5.05, df=86, p<.01; 60 minutes, t=12.00, df=86, p<.01; verbal aggressiveness, 30 minutes, t=5.06, df=86; 60 minutes, t=11.97, df=86, p<.01; hostility, 30 minutes, t=5.05, df=86, p<.01; 60 minutes, t=12.00, df=86, p<.01; irritability, 30 minutes, t=5.13, df=86, p<.01; 60 minutes, t=12.12, df=86, p<.01), and the 30-minute condition had higher waiting scores than did the 60-minute condition for each group (physical aggressiveness, t=6.94, df=86, p<.01; verbal aggressiveness, t=6.91, df=86, p<.01; hostility, t=6.95, df=86, p<.01; irritability, t=6.98, df=86, p<.01).

In addition to the main effect of waiting time, irritability scores showed an interaction effect between waiting time and group (F=2.84, df=2/86. 05<p<.10). Therefore, the simple main effect of condition was analyzed for each group (L group, F=23.61, df=86, p<.01; H group, F=52.27, df=2/86, p<.01). The 5-minute condition showed higher waiting scores than did the other two conditions (L group, 30 minutes, t=2.93, df=86, p<.01; 60 minutes, t=6.52, df=86, p<.01; H group, 30 minutes, t=4.37, df=86, p<.01; 60 minutes, t=10.78, df=86, p<.01), and the 30-minute condition showed higher waiting scores than did the 60-minute condition for each group (L group, t=3.58, df=86, p<.01; H group, t=6.41, df=86, p<.01). The simple main effect of group was analyzed for each waiting time condition. The simple main effect of group was significant for the 60-minute condition (t=4.24, df=1/129, p<.05), and the L group had higher waiting scores than the H group.

Discussion

The results indicated that the strength of the expected frustration response increased and the percentage of "waiting" responses decreased when the waiting time was longer.

The results for which the percentage of "waiting" responses decreased when the waiting time was longer are consistent with those of the ANOVA in the present study and in Mitsutomi (2022), which suggests that waiting scores decrease when waiting times become longer. Previous research has focused on situational factors such as waiting time, waiting place, and intimacy of the waiting object, and have not investigated interactions between situational and personality factors. Therefore, Mitsutomi (2022) focused on aggressiveness as a personality factor and waiting time as a situational factor and investigated whether they affect waiting behavior. The results indicated that irritability (aggressiveness) interacts with waiting time as a situational factor.

The first purpose of the present study was to repeat and confirm the results of Mitsutomi (2022). Our results showed that interaction effect between irritability and waiting time approached significance. In the 60-minute condition, the L group had higher waiting scores than the H group. However, no significant difference in waiting scores was found between the H and L groups under the 5- and 30-minute conditions.

These results are also true of percentage of waiting response. Thus, the present study confirmed the results of Mitsutomi (2022). The second purpose was to examine whether the results of waiting behavior could be explained by the strength of the expected frustration response. The results indicated that there was an interaction between irritability and waiting time, and that in the 60-minute condition, the L

group had higher waiting scores than the H group. However, the 60-minute condition was strong for the expected frustration regardless of H and L group. Therefore, the present study could not explain the results of waiting behavior in terms of the expected frustration response. However, the present study was study that had small sample. It is necessary to conduct the study that had the large sample.

We also measured the expected frustration. We should measure not expected frustration but actual frustration. However, it is difficult to measure the actual frustration. We approached hypothetical situation to the real situation. We need to set the more real situation and investigate the relationship between expected frustration and waiting behavior.

In the 30-minute condition for the physical aggressiveness subscale, the expected frustration response was strong for the H group. On the other hand, the expected frustration response was weak for the L group. It is expected from these results that in the H group, the percentage of "not waiting" responses was higher, whereas in the L group, the percentage of "waiting" responses was higher. However, these results different based on anticipation; that is, the results indicate that the percentages of "not sure" was higher for the L group than H group and percentage of "not waiting" were higher for the H group than for the L group. Further research is needed to gain a better understanding of these results.

The percentage of "not sure" was higher for the L group than for the H group, whereas the percentage of "not waiting" was higher for the H group than for the L group. Therefore, the L group, in which the percentage of "not sure" was higher, might have higher waiting scores than the H group, in which the percentage of "not waiting" was higher. However, the results of the ANOVA did not indicate that the L group had higher waiting scores than the H group. Further research is needed to gain a better understanding of these results.

Looking at the results concerning the 30-minute for the verbal aggressiveness, the L group had the medium expected frustration although the H group had the strong or weak expected frustration. H group might have medium waiting scores as H group had the stronger or weak expected frustration. On the other hand, L group might have medium waiting scores as L group had the medium expected frustration. Thus, there was no difference in the percentage of waiting response between low and high group.

The present study identified an interaction effect between irritability and waiting time. However, no interaction effect was found between the other three concepts and waiting time. This result indicates that irritability is an important concept in investigating the interaction effect between aggressiveness and waiting time.

In conclusion, the results of the present study indicate the presence of an interaction effect between irritability (aggressiveness) as a personality factor and waiting time as a situational factor, and this result can not explained in terms of the expected frustration response.

References

Ando, A., Soga, S., Yamasaki, Y., Shimai, S., Shimada, H., Usuki, N., Oashi, O., & Sasaki, A. (1999). Development of the Japanese version of the Buss–Perry Aggression Questionnaire (BPAQ).:*Japanese Journal of Psychology, 70*, 384–392.

Funder, D., Block, J.H., & Block, J. (1983). Delay of gratification: Some longitudinal personality correlates. *Journal of Personality and Social Psychology, 44*, 1198–1213.

Klineberg, S.L. (1968). Future time perspective and the preference for delayed reward. *Journal of Personality and Social Psychology, 8,* 253–257.

Miller, D.T., Weinstein, S.M., & Karnial, R. (1978). Effects of age and self-verbalization on children's ability to delay gratification. *Developmental Psychology, 14*, 569–570.

Mischel, W. (1961a). Preference for delayed reinforcement and social responsibility. *Journal of Abnormal and Social Psychology, 62,* 1–7.

Mischel, W. (1961b). Delay of gratification, need for achievement and acquiescence in another culture. *Journal of Abnormal and Social Psycholog*y, *62*, 543–552.

Mischel, W. (1966). Theory and research on the antecedents of self-imposed delay of reward. In B.A. Maher (Ed.), *Progress in Experimental Personality Research, 3*, 85–132.

Mischel, W. (1974). Processes in delay of gratification. In L Berkowitz (Ed), *Advances in Experimental Social Psychology, 7*, 249–292.

Mischel, W., & Baker, N. (1975). Cognitive appraisals and transformation in delay behavior. *Journal of Personality and Social Psychology, 31*, 254–261.

Mischel, W., & Ebbesen, E.B. (1970). Attention in delay of gratification. *Journal of Personality and Social Psychology, 16,* 329–337.

Mischel, W., Ebbesen, E., & Zeiss, A.R. (1972). Cognitive and attentional mechanisms in delay of gratification. *Journal of Personality and Social Psychology, 21*, 204–218.

Mischel, W., & Metzner, R. (1962). Preference for delayed reward as a function of age, intelligence, and length of delay interval. *Journal of Abnormal and Social Psychology, 64,* 425–431.

Mischel, W., & Moore, B. (1973). Effects of attention to symbolically presented rewards reward stimulus and its cognitive representation in voluntary delay. *Journal of Personality and Social Psychology, 34,* 419–424.

Mitsutomi, T. & Kobayashi, S. (2012). The effects of situational factors on waiting behavior in adolescents. *Kwassui Bulletin, 55*, 1–11.

Mitsutomi, T., & Kobayashi, S. (2014). Situational factors and waiting behavior in adolescents. *The Kwassui Review*, 57, 69–89.

Mitsutomi, T., Kobayashi,S., & Fukuhara, S. (2015). Do situational factors influence waiting behavior in adolescents? *The kwassui Review,58*,149-169.

Mitsutomi,T., & Kobayashi,S. (2016). Effects of aggressiveness, waiting place and waiting time on waiting behavior among female university students. *The Kwassui Review, 59,* 143-166.

Mitsutomi, T . (2022). Waiting behavior- aggressiveness and waiting time-https:.//w w w kwassui ac.jp.

/university/wp-content/up lords/2022/03/63 .03 Mitsutomi. pdf.

Moore, B., Mischel, W ., & Zeiss, (1976). Comparative effects of the reward stimulus and its cognitive representation in voluntary delay. *Journal of personality and Social Psychology, 34*, 419-424

Toner, I.J. (1981). Role involvement and delay maintenance in preschool children. *The Journal of Genetic Psychology, 138*, 245–251.

Toner, I.J., Lewis, B.C., & Gribble, C. (1979). Evaluative verbalization and delay maintenance behavior in children. *Journal of Experimental Child Psychology, 28,* 205–210.

Toner, I.J., & Smith, R.A. (1977). Age and overt verbalization in delay maintenance. *Journal of Experimental Child Psychology, 24*, 123–128.

Table 1

The percentage of the expected frustration response in the waiting time condition for physical aggressiveness groups

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
expected weak frustration	85.8	95.9	19.1	50.0	4.8	20.9
expected medium frustration	14.3	4.2	23.8	29.2	19.1	20.9
expected strong frustration	0	0	57.2	20.9	76.2	58.4

Table 2

The percentage of the expected frustration response in the waiting time conditions for verbal aggressi v eness groups

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
expected weak frustration	92.0	85.0	40.0	25.0	20.0	15.0
expected medium frustration	8.0	15.0	12.5	45.0	8.0	20.0
expected strong frustration	0	0	44.0	30.0	72.0	65.0

Table 3

The percentage of the expected frustration response in the waiting time conditions for irritability groups

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
expected weak frustration	84.0	95.0	32.0	40.0	12.0	15.0
expected medium frustration	16.0	5.0	24.0	25.0	20.0	25.0
expected strong frustration	0.0	0.0	44.0	35.0	68.6	60.0

Table 4

The percentage of the expected frustration response in the waiting time condition for the hostility group

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
expected weak frustration	83.4	95.3	33.4	38.1	16.7	14.3
expected medium frustration	16.7	4.8	28.6	28.6	20.9	19.1
expected strong frustration	0	0	41.7	33.4	62.5	66.7

Table 5

The relationship between the waiting response and expected frustration response for the physical aggressiveness group in the five minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	100	66.7	100	90.9	100	0
non sure response	0	0	0	9.1	0	0
not waiting response	0	33.4	0	0	0	0

Table 6

The relationship between the waiting response and the expected frustration response for the physical aggressiveness group in the thirty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	80	100	25	83.4	16.7	16.7
non sure response	20	0	41.7	16.7	83.4	66.7
not waiting response	0	0	33.4	0	0	16.7

Table 7

The relationship between the waiting response and the expected frustration response for the physical aggressiveness group in the sixty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	100	50	12.5	60	40	0
non sure response	0	50	18.8	20	0	42.9
not waiting response	0	0	68.8	20	60	57.2

Table 8

The relationship between the waiting response and the expected frustration for irritability group in the five minute condition

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	100	100	0	89.5	100	0
not sure response	0	0	0	10.6	0	0
non waiting response	0	0	0	0	0	0

Table 9

The relationship between the waiting response and expected frustration response for the irritability group in the thirty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	100	42.9	18.2	77.8	60	16.7
non sure response	0	57.2	63.7	22.3	40	50
non waiting response	0	0	18.2	0	0	33.4

Table 10

The relationship between the waiting response and the expected frustration response for the irritability group in the sixty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	66.7	0	5.6	66.7	80	8.4
non sure response	0	50	27.8	0	0	33.4
not waiting response	33.4	50	66.7	33.4	20	58.4

Table 11

The relationship between the waiting response and the expected frustration response for verbal aggressiveness group in the five minute condition

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	91.3	100	0	100	100	100
not sure response	8.7	0	0	0	0	0
not waiting response	0	0	0	0	0	0

Table 12

The relationship between the waiting response and the expected frustration response for the verbal aggressiveness group in the thirty minute condition

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	72.8	66.7	27.3	100	42.9	11.2
non sure response	27.3	33.4	45.5	0	57.2	66.7
non waiting response	0	0	27.7	0	0	22.3

Table 13

The relationship between the waiting response and expected frustration response for verbal aggressiveness group in the sixty minute condition

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	33.4	60	5.9	100	25	7.7
non sure response	0	20	29.5	0	50	30.8
non waiting response	66.7	20	64.7	0	25	61.6

Table 14

The relationship between the waiting response and expected frustration response for the hostility group in the five minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	90	100	0	100	0	0
non sure response	10	0	0	0	0	0
non waiting response	0	0	0	0	0	0

Table 15

The relationship between the waiting response and the expected frustration for the hostility group in the thirty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	62.5	66.7	20	100	20	28.6
non sure response	37.5	33.4	50	0	80	57.2
not waiting response	0	0	30	0	0	14.3

Table 16

The relationship between the waiting response and the expected frustration response for the hostility group in the sixty minute

	H			L		
	expected weak frustration	expected medium frustration	expected strong frustration	expected weak frustration	expected medium frustration	expected strong frustration
waiting response	60	0	6.0	100	75	6.7
non sure response	0	33.4	25	0	0	40.0
not waiting response	40	66.7	68.8	0	25	53.4

Table 17

The percentage of waiting response in the waiting time condition for physical aggressiveness group

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
waiting response	100	91.7	52.4	50	23.8	20.9
not sure response	0	8.4	28.6	50	23.8	25.0
non waiting response	0	0	19.1	0	52.4	54.2

Table 18

The percentage of waiting response in the waiting time for the hostility group

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
waiting response	91.7	100	45.9	57.2	16.7	28.6
non sure response	8.4	0	41.7	38.1	20.9	28.6
non waiting response	0	0	12.5	4.8	62.5	42.9

Table 19

The percentage of waiting response in the waiting condition for the irritability group

	five minute		thirty minute		sixty minute	
	H	L	H	L	H	L
waiting response	100	90	48	55	12	35
non sure response	0	10	44	35	28	20
non waiting response	0	0	8	10	60	45

Table 20

The percentage of waiting response in the waiting time condition for the verval aggressiveness group

	five minute		thirty minute		six minute	
	H	L	H	L	H	L
waiting response	92.0	100	52	50	20	25
non sure response	8.0	0	36	45	24	25
non waiting response	0	0	12	5	56	50

Table 21

The mean waiting scores in the three waiting time for verbal aggressiveness group

five minute		thirty minute		sixty minute	
H	L	H	L	H	L
1.92 (0.27)	2.00 (0.00)	1.40 (0.69)	1.45 (0.58)	0.64 (0.79)	0.75 (0.82)

Table 22

The mean waiting scores in the waiting time for irritability group

five minute		thirty minute		sixty minute	
H	L	H	L	H	L
2.00 (0.00)	1.90 (0.30)	1.40 (0.63)	1.45 (0.67)	0.52 (0.70)	0.90 (0.88)

Table 23

The mean waiting scores in the waiting time for physical aggressiveness group

five minute		thirty minute		sixty minute	
H	L	H	L	H	L
2.00 (0.00)	1.92 (0.27)	1.33 (0.77)	1.50 (0.50)	0.71 (0.82)	0.66 (0.79)

Table 24

The mean waiting scores in the waiting time for the hostility group

five minute		thirty minute		sixty minute	
H	L	H	L	H	L
1.91 (0.27)	2.00 (0.00)	1.33 (0.68)	1.52 (0.58)	0.54 (0.76)	0.85 (0.83)