



Presentation 19 - Han Kang



Preliminary Findings
Reported Unexplained Multisymptom Illness Among
Veterans Who Participated in the VA Longitudinal
Health Study of Gulf War Era Veterans


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 on Gulf War Veterans' Illnesses
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Unexplained Multisymptom Illness

- Several different symptoms together that persist for 6 months or longer
- Not adequately explained by conventional medical or psychiatric diagnoses
- May be diagnosed as chronic fatigue syndrome, fibromyalgia, irritable bowel syndrome, or multiple chemical sensitivity



Presence of Unexplained Multisymptom Illness for 6 Months or Longer

	Gulf		Era	
	Number	%	Number	%
No	3751	65	3104	90
Yes	2016	35	355	10
Total	5767	100	3459	100



Demographic Characteristics of Veterans by Gulf War Deployment and Presence of Multisymptom Illness

Demographics	Gulf MSI %		Era MSI %	
	Yes	No	Yes	No
Gender				
Male	75	82	69	78
Female	25	18	31	22
Race				
White	70	80	77	82
Black	21	14	17	12
Hispanic	6	3	3	3
Others	3	3	3	3
Marital Status				
Married	56	55	60	62
Single	38	40	31	33
Others	6	5	9	5
Median Age (1991)	30	29	33	33

Military Characteristics of Veterans by Gulf War Deployment and Presence of Multisymptom Illness

	Gulf MSI, %		Era MSI, %	
	Yes	No	Yes	No
Rank				
Enlisted	88	81	82	75
Officer	12	19	18	25
Branch				
Air Force	9	15	13	13
Army	73	59	68	65
Marine	9	11	8	9
Navy	9	15	11	13
Component				
Active	34	38	40	39
Guard	32	27	26	27
Reserve	34	35	34	34

Percent Distribution of Veterans by Year First Experienced Unexplained Multisymptom Illness

Year	Gulf	Era
1991 – 1993	67.2	41.4
1994 – 1996	15.0	19.6
1997 – 1999	8.7	18.2
2000 – 2002	7.3	16.9
2003 – 2005	1.9	3.9
Median Year	1992	1995

Effects of Activities on Gulf War Veterans' Unexplained Illness Symptoms


Activity	Effects on Symptoms, %					
	Worse	No effect	Better	Not sure	Not tried	BW*
Light exercise	19.7	38.1	11.9	24.7	5.4	0.6
Vigorous exercise	36.6	21.9	8.0	19.8	13.5	0.2
Smoking tobacco	5.3	21.3	2.0	16.0	55.1	0.4
Drinking alcohol	7.6	28.9	6.5	22.2	34.6	0.9
Maintaining a busy work or social schedule	24.5	38.6	5.1	24.2	7.4	0.2

* % Better/ % Worse

Effects of Activities on Gulf War Veterans' Unexplained Illness Symptoms

Activity	Effects on Symptoms, %					
	Worse	No effect	Better	Not sure	Not tried	BW*
Maintaining a generally well-balanced diet	1.9	44.7	12.4	30.2	10.6	6.5
Adopting specific eating	2.2	34.7	11.3	26.4	25.2	5.0
Maintaining a regular sleep schedule	5.3	47.0	10.4	26.0	11.1	2.0
Cutting back on work or social activities	4.9	39.9	13.6	24.3	17.1	2.8
Avoiding stressful situations	3.9	36.6	20.0	26.0	13.2	5.0
Avoiding exposure to certain chemicals or smells	4.4	24.4	14.3	27.8	28.8	3.3


* % Better/ % Worse



Effects of Activities on Gulf War Era Veterans' Unexplained Illness Symptoms

Activity	Effects on Symptoms, %					
	Worse	No effect	Better	Not sure	Not tried	B/W*
Light exercise	18.3	38.2	15.8	19.3	8.1	0.9
Vigorous exercise	35.2	21.2	7.5	16.7	19.2	0.2
Smoking tobacco	7.0	17.6	3.2	17.6	54.4	0.4
Drinking alcohol	9.8	25.1	6.8	20.6	37.5	0.7
Maintaining a busy work or social schedule	23.2	33.5	9.0	24.2	13.0	0.4


* % Better / % Worse



Effects of Activities on Gulf War Era Veterans' Unexplained Illness Symptoms


Activity	Effects on Symptoms, %					
	Worse	No effect	Better	Not sure	Not tried	B/W*
Maintaining a generally well-balanced diet.	2.2	36.9	20.4	29.4	10.9	9.1
Adopting specific eating	2.5	29.9	17.8	23.3	26.3	7.1
Maintaining a regular sleep schedule	4.0	42.0	14.7	23.5	15.7	3.7
Cutting back on work or social activities	5.2	34.3	18.3	22.5	19.5	3.5
Avoiding stressful situations	2.9	30.4	25.1	25.9	15.4	8.4
Avoiding exposure to certain chemicals or smells	3.4	23.0	13.6	28.7	31.0	3.9

* % Better / % Worse



How Would You Rate the Condition Now?


Rating	Gulf	Era
Completely recovered	2.3%	5.9%
Much improved	7.3%	12.6%
Somewhat improved	13.9%	22.6%
About the same	35.8%	28.0%
Somewhat worse	25.2%	20.8%
Much worse	15.2%	9.7%



Category of Treatments that Veterans Have Used for the Unexplained Illness Symptoms


Treatments	Helped (n)	Made Worse (n)	Ratio**
Prescription Drug	889	175	5.1
Over the Counter Drug	546	62	8.8
Others*	412	135	3.1
Physical Therapy, Surgery	262	85	3.1
Nutrition Supplement and Dieting	207	35	5.9

*Others include acupuncture, massage, meditation, prayer, relaxation therapy, illegal drug use, cognitive therapy, counseling, interpersonal skills, sleep management, psychotherapy, etc.
 ** A ratio of the number of veterans helped/the number of veterans whose symptoms got worse.




Top 10 Treatments That Helped Gulf War Veterans' Unexplained Symptoms

Treatments	Number	Percent
Generic OTC medication	181	7.8
Dieting and Nutritional Supplements	175	7.6
Physical therapy	138	6.0
OTC non-opioid analgesics	131	5.7
Rx antidepressants	126	5.4
OTC non-opioid anti-inflammatories	93	4.0
Rx anti-inflammatory agents	88	3.8
Rx non-opioid analgesics	79	3.4
Physical exercise	69	3.0
Rx stomach acid blockers	62	2.7




A List of "Other" Treatments That Helped Gulf War Veterans' Unexplained Symptoms

Treatments	Number	Percent
Acupuncture	5	0.2
Magnets, polarity therapy	6	0.3
Massage	26	1.1
Breathing exercises	10	0.4
Meditation, yoga	10	0.4
Relaxation therapy	50	2.1
Herbal medicine	40	1.7
Illegal drug use	13	0.6
Mental health (counseling, psychologist, psychiatrist)	50	2.1
Radiation therapy	8	0.4
Interpersonal relationship skills	11	0.5
Sleep study	32	1.4



Effectiveness of Selected Treatments Reported by Gulf War Veterans

Treatments	N	Improvement, %		Affected Symptoms, %		Top 3 Symptoms Helped
		Short	Long-term	All	Some	
Generic OTC medication	181	72	28	12	88	headache, joint pain, depression
Dieting & Nutritional Supplements	175	53	47	10	90	fatigue, joint pain, IBS
Physical therapy	138	90	10	5	95	joint pain, back pain, muscle pain
OTC non-opioid analgesics	131	91	9	8	92	headache, joint pain, muscle pain
Rx antidepressants	126	52	48	6	94	depression, anxiety, sleep difficulty



Effectiveness of Non Conventional Treatments Reported by Gulf War Veterans

Treatments	N	Improvement, %		Affected Symptoms, %		Top 3 Symptoms Helped
		Short	Long-term	All	Some	
Massage	26	80	20	20	80	muscle pain, joint pain, back pain
Meditation, Yoga, Prayer	10	60	40	22	78	anxiety, headache, muscle pain
Relaxation Therapy	50	84	16	15	85	joint pain, fatigue, headache
Herbal Medicine	40	69	31	11	89	memory loss, fatigue, joint pain
Sleep Study	32	69	31	13	87	fatigue, headache, sleep difficulty

Summary



- A high percentage of Gulf veterans reported having experienced an unexplained multisymptom illness (MSI) than non-Gulf veterans (35% vs. 10%).
- The median year of MSI onset for Gulf veterans was 1992, while the same for non-Gulf Veterans was 1995.
- Exercise, smoking, drinking and maintaining busy schedule, on the whole, made MSI symptoms worse, while maintaining balanced diet, regular sleep, cutting back on work/social activities, and avoiding stressful situations and avoiding exposure to certain chemicals/smells, on the whole, made MSI symptoms better.
- At the time of completing survey, for Gulf veterans, the condition was getting better for 24%, about the same for 36%, and getting worse for 40% of veterans, while the corresponding figures for non-Gulf veterans were 41%, 28%, and 31%, respectively.

Summary continued



- Prescription drugs and OTC drugs are by far the most common treatments that were used for the MSI symptoms.
- Among the "other" category, treatment by mental health providers (psychologist, psychiatrist, trained counselor), relaxation therapy, herbal medicine, sleep study, and massage, in descending order, were the most common treatments that provided alleviation from the symptoms.
- Top three symptoms that were helped by above treatments included headache, joint/muscle pain, fatigue, depression, anxiety, and sleep difficulty.